

2009 WV APTA

Technical Report

Submitted

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Acronyms and Abbreviations

AERA	American Educational Research Association
APA	American Psychological Association
APH	American Printing House for the Blind
AYP	Adequate Yearly Progress
CE	Critical Element
CR	Constructed-Response
CSO	Content Standards and Objectives
CTB	CTB/McGraw-Hill
FERPA	Family Educational Rights and Privacy Act
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Program
IRR	Inter-rater Reliability
LOA	Level of Assistance
MA	Mathematics
MC	Multiple-Choice
NCLB	No Child Left Behind Act
NCME	National Council on Measurement in Education
RLA	Reading/Language Arts
SC	Science
SD	Standard Deviation
SEM	Standard Error of Measurement
USDOE	United States Department of Education
WESTEST 2	West Virginia Educational Standards Test 2
WV	West Virginia
WVDE	West Virginia Department of Education
WV APTA	West Virginia Alternate Performance Task Assessment
WV-MAP	West Virginia Measures of Academic Progress

Executive Summary

This 2008–09 West Virginia Alternate Performance Task Assessment (WV APTA) Technical Report documents the processes and procedures implemented in support of the 2008–09 spring administration of the WV APTA by CTB/McGraw-Hill (CTB) and the West Virginia Department of Education (WVDE). This technical report shows how the processes and procedures applied, as well as the results, relate to the issues of validity and reliability, the *Standards for Educational and Psychological Testing* [American Educational Research Association (AERA), American Psychological Association (APA), & the National Council on Measurement in Education (NCME), 1999], and the federal Peer Review process as detailed in the Standards and Assessments Peer Review Guidance (United States Department of Education, 2007). Some primary findings presented in this technical report are summarized below.

Purpose: The WV APTA focuses on how well students acquire the knowledge, skills, and abilities specified in the *West Virginia Extended Academic Content Standards* (WVDE, 2009f) in the areas of Mathematics, Reading/Language Arts, and Science. The WV APTA is designed to meet the requirements of the federal No Child Left Behind Act (NCLB), as well as legislation specific to the state of West Virginia (WV) in relation to accountability goals, the Individuals with Disabilities Education Act (IDEA), and to provide students, parents, teachers, and schools with information about how students are progressing in relation to the *West Virginia Extended Academic Content Standards*. In addition to providing results for use in state and federal accountability programs, WV APTA results may be used as one of many tools to provide parents and guardians with information about the academic performances of their children, to help inform school district and school level decision making related to student learning, to identify grade-level curricular strengths and weaknesses, and to identify curricular areas where additional diagnoses are indicated in order to prescribe a course of intervention or enhancement, corrective instruction, or specialized services.

Administration: The administration of the 2008–09 WV APTA occurred from April 27, 2009, through May 8, 2009. A high level of security is maintained on all testing materials, at all levels. For all content areas, each test administration occurs on an individual student basis where teachers/test administrators mark the student's response, response mode, and prompt type or level of assistance provided. Teachers mark actual student raw responses in addition to marking the response and prompt type in the actual test booklet. The assessment administration is not timed and can be conducted over several days in order to accommodate the students and minimize fatigue.

The WV APTA assesses students in Mathematics and Reading/Language Arts at grades 3–8 and 11, as well as in Science at grades 4, 6, and 11. This is a change from prior years where Mathematics and Reading/Language Arts were administered at grades 3–8 and 10. The change in the grades for administration is pursuant to WV Board of Education Policies 2510 (WVDE, 2009d) and 2520.16 (WVDE, 2009e).

Student Population: Students assessed with the WV APTA typically have significant cognitive disabilities and are unable to participate in the general assessment West Virginia Educational Standards Test 2 (WESTEST 2) (WVDE, 2009f). Participation in the WV APTA is guided by the WV Board of Education Policy 2340: WV Measures of Academic Progress (WVDE, 2009b), WV Board of Education Policy 2419: Regulations for the Education of Students with Exceptionalities (WVDE, 2009c), and the West Virginia Guidelines for Participation in State Assessments (WVDE, 2009f). Within the context of the 2008–09 administration, as few as 248 (grade 3 Reading/Language Arts) and as many as 281 (grade 4 Mathematics, Reading/Language Arts, and Science) students participated in the WV APTA administration, as compared to the 2007–08 administration, where between 239 (grade 10 Reading/Language Arts) and 275 (grade 8 Reading/Language Arts) students participated.

Operational Analyses: The WV APTA uses raw score reporting, incorporating both the content score and the level of assistance (LOA) with which a student answers an item, to determine the total score for the item and ultimately the content area. The items currently presented in the WV APTA forms are approximately the same

as those items used within the context of the standard setting activities conducted in 2006 for Mathematics and Reading/Language Arts and in 2007 for Science. Items undergo classical item analysis annually in order to ensure that item performance is not dramatically altered from year to year, which could suggest item exposure or other issues that would raise concerns about item validity and year to year comparability of scores. Any item that displays problematic classical statistics or dramatic changes across years is carefully reviewed to determine the appropriateness of continuing to include the item in scoring and reporting. Within the context of the 2008–09 WV APTA administration, no items required suppression due to classical statistics. This report contains information regarding the statistics for each item and for the forms overall, for both this administration and longitudinal comparisons.

Results: In general, longitudinal results indicate that since the 2007–08 administration the percentages of students with proficiency levels of *Mastery* and *Above Mastery* in Mathematics have increased for two grade levels, decreased for three grade levels, and remained the same for one grade level; in Reading/Language Arts have increased for three grade levels, decreased for two grade levels, and remained the same for one grade level; and in Science have increased for two grade levels and decreased for one grade level. The greatest increase was for grade 11 Science with a 6% increase across the two administrations.

This report provides detailed information related to the items and issues addressed above and demonstrates that the processes and procedures applied in the WV APTA adhered to appropriate standards and practices of educational assessment. Ultimately, this report serves to document evidence that valid inferences about WV students assessed with the WV APTA can be derived from the WV APTA scoring and reporting.

Overview

CE 3.7

Introduction

This technical report describes the 2008–09 administration of the West Virginia Alternate Performance Task Assessment (WV APTA), the alternate assessment for those students with significant cognitive disabilities who are unable to participate in the general assessment West Virginia Educational Standards Test 2 (WESTEST 2) even with accommodations [West Virginia Department of Education (WVDE), 2009f].

In the spring of 2009, the WV APTA was administered operationally to assess Mathematics (MA), Reading/Language Arts (RLA), and Science (SC) skill, knowledge, and ability. Students in grades 3–8 and 11 were administered Mathematics and Reading/Language Arts, and students in grades 4, 6, and 11 were also administered Science. The grade levels assessed changed from prior years where Mathematics and Reading/Language Arts were administered at grades 3–8 and 10. The change in testing from grade 10 to grade 11 is pursuant to West Virginia Board of Education Policies 2510 (WVDE, 2009d) and 2520.16 (WVDE, 2009e). All eligible students in the state, including those who needed various accommodations, participated in the WV APTA administration from April 27, 2009, through May 8, 2009, at school sites throughout West Virginia (WV).

The alternate assessment is an important component of an overall state assessment program (Quenemoen & Thurlow, 2007). The development of the WV APTA was a multistep process that included the development of alternate standards, creation of test blueprints and test forms, field test administration, selection of operational items and forms, administration of operational forms, scoring, standard setting, reporting, and analyses. All are important steps in the process of developing a valid assessment system, regardless of the format of the assessment.

This document serves to describe the current administration of the WV APTA in relation to the importance, reliability, and validity of the assessment as part of the WV assessment system. The *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999) include Standard 3.6:

The type of items, the response formats, scoring procedures, and test administration procedures should be selected based on the purposes of the test, the domain to be measured, and the intended test takers. To the extent possible, test content should be chosen to ensure that intended inferences from test scores are equally valid for members of different groups of test takers. The test review process should include empirical analyses and, when appropriate, the use of expert judges to review items and response formats. The qualifications, relevant experiences, and demographic characteristics of expert judges should also be documented (p. 44).

The WV APTA process has paid close attention to each of these directions.

In addition to being guided by the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999), direction from the *Standards and Assessment Peer Review Guidance* [United States Department of Education (USDOE), 2007] is beneficial. This technical report provides evidence toward a variety of Critical Elements (CE) as part of the guidance for Peer Review. The bulk of this document covers evidence in Section 4—Technical Quality, CEs 4.1 (validity), 4.2 (reliability), and 4.5 (administration, scoring, analysis, and reporting). Text boxes are used to highlight areas for general reference, where complete review of text reveals links to additional CEs.

Purpose and Use of the WV APTA

In the 2005–06 school year, the federal No Child Left Behind Act (NCLB) required all states to test all students in reading and mathematics in grades 3–8 and once in high school. Beginning with the 2007–08 school year, states were required to also administer science assessments at least once in grades 3–5, once in grades 6–9, and once in grades 10–12. Based on the NCLB legislation, student performance, reported in terms of proficiency categories, is used to determine the Adequate Yearly Progress (AYP) of students at the school, district, and state levels.

The WV APTA is administered in Mathematics and Reading/Language Arts in grades 3–8 and 11 and in Science in grades 4, 6, and 11.

The 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA) requires participation of students with disabilities in state and districtwide assessments. Specifically, IDEA stipulates in section 612, part A, number 16, “All children with disabilities are included in all general State and districtwide assessment programs, including assessments described under section 1111 of the Elementary and Secondary Education Act of 1965, with appropriate accommodations and alternate assessments where necessary and as indicated in their respective individualized education programs” (USDOE, 2004). All decisions regarding the participation of a student with disabilities in the WESTEST 2 or WV APTA assessment must be addressed by the student’s Individualized Education Program (IEP) team and be in alignment with the participation and eligibility policies of WV.

As stated on the WVDE Web site in relation to assessment and accountability (WVDE, 2009g):

“The purpose of the WV APTA is to measure student mastery of the Extended Content Standards and Objectives (CSOs) for students whose significant cognitive disabilities do not allow them to access the general statewide assessment, even with accommodations. The assessment results are used to determine achievement levels, to re-direct instruction and assist in school improvement efforts in reading/language arts and mathematics. Additionally, WV APTA results are used to calculate accountability to meet the NCLB accountability requirements in grades 3–8 and 11 in reading/language arts and mathematics.”

Part 1. Standards

CE 1.1, 1.2

The 2008–09 WV APTA forms consisted of custom multiple-choice (MC) and constructed-response (CR) performance task items that measure skills associated with West Virginia’s extended content standards in Mathematics, Reading/Language Arts, and Science. The *West Virginia Extended Academic Content Standards and Performance Descriptors* (WVDE, 2009e) are on grade level and have been developed from the regular content standards for each grade.

Extended Academic Content Standards

CE 1.1, 1.2, 1.4, 2.1, 2.2, 2.6

Alternate assessment standards were developed for the WV APTA in accordance with NCLB regulations, which require that the content of alternate assessments be comparable to that of regular state assessments and must show clear linkage to the content standards for the grade in which the student is enrolled. According to NCLB, alternate assessment standards may cover a more narrow range of content, within a given content area, and grade-level content may be reduced in complexity (USDOE, 2007).

A diverse panel of educators (including regular educators, special educators, and content specialists) from across the state, parents, the West Virginia Office of Special Education, and the West Virginia Office of Assessment, Accountability, and Research gathered to determine the essence of the West Virginia CSOs for Mathematics and Reading/Language Arts for grades 3–8 and 10 and Science for grades 4, 6, and 11. Extended Academic Content Standards and Performance Level Descriptors for grades 3–8 and 10 (Mathematics and Reading/Language Arts) and grades 4, 6, and 11 (Science) were developed for students with the most significant cognitive disabilities (West Virginia Department of Education, 2008). In response to legislative changes [see WV Board of Education Policies 2510 (WVDE, 2009d) and 2520.16 (WVDE, 2009e)], for the 2008–09 WV APTA, the WVDE reviewed the grade 10 Mathematics and Reading/Language Arts CSOs to determine applicability for grade 11. Upon careful review, it was determined that the grade 10 Extended Academic Content Standards and Performance Level Descriptors were appropriate at grade 11. As such, the *West Virginia Extended Academic Content Standards and Performance Level Descriptors* as incorporated in WV Board of Education Policy 2520.16 indicate grades 3–8 and 11 (WVDE, 2009e).

Extended grade-level standards were developed to provide linkage to the fundamental content of the CSOs and to ensure that students with the most significant cognitive disabilities have access to and make progress in the general curriculum. Dr. Jan Sheinker facilitated the development process during the August 3–5 and August 18–20, 2005, meetings. The change in assessment from grade 10 to grade 11 and the associated process is documented by and available from the WVDE upon request.

The Office of Special Education first provided statewide teacher training on how to teach with the extended standards during October 2005. This training has been ongoing as needed and in order to incorporate the Science standards in 2007.

The WV Board of Education Policy 2520.16 (WVDE, 2009e) provides in detail for each grade level and content area the CSO, the essence of the CSO, Grade-Level Objectives, the Extended Grade-Level Standards, and the Performance Descriptors.

Alignment Studies

CE 1.3, 2.1, 2.5, 3.4, 3.5, 3.6, 5.1, 5.2, 5.3, 5.5

The WV APTA forms are designed to align with the extended standards. The WVDE conducted two external alignment studies (pre- and post-alignments) of the *West Virginia Extended Academic Content Standards and Performance Level Descriptors* and the WV APTA assessments in the three content areas. These alignment studies were conducted externally by Dr. Norman Webb of the University of Wisconsin, per the following indicators: Categorical Concurrence, Depth of Knowledge, Range of Knowledge, and Balance of Representation, while addressing both quantitatively and qualitatively the comprehensiveness

of the assessments to ensure the alignment of content and performance descriptors with the assessment (Webb, 2006 and 2007).

Background

Alignment is frequently used to describe the state of an education system. For purposes of the study, alignment was defined as the degree to which the *West Virginia Extended Academic Content Standards and Performance Level Descriptors* and the WV APTA assessments are in agreement and serve in conjunction with one another to guide the education system for WV students toward supporting the instruction of what students are expected to know and do.

The alignment process produced the following information:

- Degree to which the *West Virginia Extended Academic Content Standards and Performance Level Descriptors* and the WV APTA are in agreement on five criteria: categorical concurrence, depth of knowledge/extended depth of knowledge consistency, range of knowledge correspondence, balance of representation, and source of challenge (Webb's alignment model)
- Item coding of depth of knowledge and standards by individual reviewers
- Report of the reliability among reviewers
- Explicit statement regarding standards and assessment alignment or lack thereof and required steps to improve the alignment

Reading/Language Arts and Mathematics

During Phase 1, or the pre-alignment study, a three-day Alignment Analysis Institute was conducted on February 1–3, 2006, using forms from the WV APTA Reading/Language Arts and Mathematics Pilot Tests. Dr. Norman Webb led the study. Eight nationally recognized content specialists (four per content area) with special education population knowledge provided expertise as external reviewers and participated in the institute. Eight internal WV educators (four per content area) provided expertise, understanding, and knowledge of the *West Virginia Extended Academic Content Standards and Performance Level Descriptors*. The internal reviewers represented regular educators, special educators with expertise in working with special populations, county administrative staff, and classroom teachers from all grade spans across the state.

Phase 2, or the post-alignment study, reviewed all forms based on the recommended revisions of the pre-alignment study. The study was conducted on April 18–19, 2007, using six of the same nationally recognized content specialists and six of the same WV educators for each content area.

The studies' reports interpreted the data and results of each study and discussed the quality of the items based on any identification of source of challenge and other comments made by the reviewers. The report identified specific issues and recommended actions needed to reach alignment. The Phase 1 study was used to revise the standards and the pilot test items. The Office of Special Education reviewed the extended academic standards and adjusted fourteen of the standards. Following the review, a committee consisting of the Office of Special Education, the Office of Assessment, Accountability, and Research, CTB test development specialists, and the Alternate Assessment Redesign Steering Committee rewrote and adjusted items that mapped to the revised standards. The revision of items specific to categorical concurrence, range of representation, and depth of knowledge were also addressed.

The Phase 2 study verifies that the *West Virginia Extended Academic Content Standards* and the operational WV APTA are in alignment and meet the Title I requirements of the No Child Left Behind Act of 2001.

Science

A two-day alignment institute was conducted on October 10–11, 2007, with the purpose of analyzing alignment between the *West Virginia Extended Science Content Standards* and the *West Virginia Alternate Performance Task Science Assessments* (WVDE, 2008). Dr. Norman Webb again led the study. Eight reviewers conducted the analysis. The reviewers included experts in special education, a state science coordinator, and special education teachers. Of the eight reviewers, four were from WV and four were from other states. The special education experts and teachers provided expertise, understanding, and knowledge of the *West Virginia Extended Academic Content Standards and Performance Level Descriptors* (WVDE, 2008) and the student population itself. The science coordinator provided science-specific expertise and knowledge of science content standards.

The study reported reasonable alignment between the extended science content standards and the alternate performance task science assessments for all three grades (Webb, 2007). The report interpreted the data and results and discussed the quality of the items based on any identification of source of challenge and other comments made by the reviewers.

The alignment report (Webb, 2007) identified specific issues and recommended actions needed to reach alignment, and recommendations made as a result of the study were used to revise the pilot test items and finalize the operational Science forms for grades 4, 6, and 11. The Office of Special Education reviewed the extended academic standards. Following the review, a committee consisting of special education and assessment experts and CTB test development specialists adjusted items that mapped to the science standards. The revision of items specific to categorical concurrence, range of representation, and depth of knowledge were also addressed.

Part 2. Test Development

CE 3.6, 4.3, 4.4, 5.4

The WV APTA items were written by WV educators and reviewed by: staff from the WVDE Office of Assessment, Accountability, and Research; the Office of Special Education; and Content Development staff from CTB (WVDE, 2009f). Content Development and Research staff from CTB worked with the WVDE to develop test forms, oversee administration and reporting, and design program evaluations. Described here, evaluations of test items, forms, alignment, and resultant student performance were conducted to ensure the most valid and reliable test with minimal bias and the most efficient and accurate administration possible.

Item Writing

Item writing workshops were held over three successive weekends for Mathematics and Reading/Language Arts in 2006 and two weekends for Science in 2007 in WV and were conducted by the WV APTA Steering Committee. During the first workshop, items were written to each standard and performance level. Items were reviewed for match to the standard, appropriateness of content for the grade level, and match to the performance level. In the second workshop, item writing assignments were completed and items were evaluated for both horizontal and vertical articulation. In other words, items were sorted by standard and performance level by grade and then evaluated to confirm that items appropriately increased in complexity over the performance levels and among standards. Then items were again sorted by standard and compared by standard across grade levels to evaluate articulation from grade to grade. During the third workshop, the participants simulated a test administration with the items to ensure that instructions were clear and the items could be administered appropriately.

Test Design

The test items appear in one consumable book for each grade, where Mathematics, Reading/Language Arts, and Science content areas appear in the same book. Tables 1–3 show the total number of items and

maximum points per content area, grade level, and standard. It should be noted that when multiple items appeared on the same student book page, these analyses treated each item as a separate item, however the original item counts treated such as a single item. Therefore, items are labeled as having item parts that truly represent discrete, unique items. In addition, there were some instances when items were suppressed during scoring. If an item was deemed unscorable or if it showed poor performance, the item did not contribute to the student's final score. Prior to administration it was determined that one Reading/Language Arts item, and no Mathematics and Science items would be suppressed, as shown in Tables 1–3. Further illustration of the breakdown of the number of CR items and the maximum number of score points possible on those items (a reflection of the rubrics and not including suppressed items) appears in Table 4.

Within the context of the WV APTA, MC items are worth up to three points and CR items are worth up to six points, in order to incorporate the level of assistance with which the student responds to the item into the item scoring. The section on Scoring (Part 5) and Tables 17 and 18 provide more reference to the application of the scoring rules and logic. Both scoring rubrics are applicable for any grade level or content area assessed by the WV ATPA. These scoring rubrics incorporate the level of assistance required by a student in responding to each item. This type of scoring was developed in an effort to both recognize and capture how students taking the WV APTA actually respond, their level of content knowledge, and the amount of support they need during test administration—apart from typical accommodations. This type of scaffolded scoring rubric is often used in alternate assessments. According to Thompson, Thurlow, Johnstone, and Altman (2005), 25 states use a scoring rubric that incorporates level of assistance. In addition, Almond and Case (2004) note that such a scoring approach, where level of assistance is captured, extends beyond scoring accuracy to provide additional and appropriate data for students with significant cognitive disabilities who were administered performance-type assessments.

Item Review and Test Fairness

All items are expected to be fair for all students. Various procedures are employed to review item fairness, also referred to as bias. Once the items are developed, they must go through a series of reviews and analyses prior to being selected as part of the item pool. A content and bias review has two purposes: to ensure that the items are grade-level appropriate and to ensure that any sensitivity issues are identified and addressed. Grade-level appropriateness is evaluated by grade-level teachers who possess the on-the-ground knowledge of how content is taught in the classroom. Sensitivity reviews ensure that items are free of offensive, disturbing, or inappropriate language or content.

Content reviews and sensitivity and bias reviews were conducted on all items. The WV APTA Steering Committee reviewed all operational items before the test administration. The review was lead by the WVDE. CTB participated in the review process, under the direction of the WVDE, by providing papers for the event and staff from the Project Development Team for instruction and interpretation.

The items were submitted to additional reviews by the American Printing House for the Blind (APH) and CTB Research. The APH review, lead by the WVDE, was purposed with attention to needs specific to students with limited vision and with an understanding of universal design. The review mostly affected layout and where art and numbers were simplified to assist students with limited vision. Lines were added to separate answer choices on student book pages. The size of the art was increased in some instances. The review by CTB Research was specific to universal design and considerations specific to students with significant cognitive disabilities, as well as to ensure that items had a correct answer and were not highly interdependent. All items were reviewed and approved by the WV APTA Steering Committee.

Due to the small sample sizes, statistical bias analyses were not performed as part of the development, review, and fairness efforts. However, descriptions about the test-level performances of various subgroups, including gender, ethnicity, level/degree of mental impairment, disability, and

accommodations are described in greater detail throughout this report, and are specifically focused upon in Part 3: Description of the Population and Part 6: Analyses and Results.

Form Assembly

After the item writing workshops for Mathematics, Reading/Language Arts, and Science were completed, items were selected to fulfill the test blueprint (WVDE, 2008). Item selection for the WV APTA was completed by content editors in CTB Publishing, and preliminary selections were reviewed and approved by the WVDE. The primary criterion for the selection of items was to meet the content specifications represented by test blueprints. Any future operational test item selections will also incorporate the statistical research guidelines and operational analyses results such that selected items will reflect the best content and statistical characteristics. Such characteristics are described in Part 6: Analyses and Results of this report.

Part 3. Description of the Population

CE 4.3, 4.6, 6.1

Definition and description of the student population of the WV APTA participants is essential for appropriate test design, administration, and score interpretation. Overall, approximately 1,900 students participated in the 2008–09 WV APTA administration, in at least one content area.

Description of Students and Eligibility Criteria

Students assessed with the WV APTA typically have significant limitations in intellectual functioning, adaptive behavior, and academic functioning expressed in conceptual, social, and practical adaptive skills. Often these students are identified as having a cognitive disability; however, students with other types of disabilities may also satisfy the criteria for participation in the WV APTA.

The eligibility criteria for participation in the WV APTA is stipulated by WV Policies 2340, 2419, and the WV Guidelines for Participation in State Assessments (WVDE, 2009f). Students must meet certain criteria as specified within the policies in order to be eligible for the WV APTA. Current WV APTA eligibility criteria are:

- “The student must have a current IEP;
- Multidisciplinary evaluation and educational performance data support the following:
 - The student exhibits significant impairment of cognitive abilities and adaptive skills to the extent that he/she requires instruction in the West Virginia Alternate Academic Achievement Standards linked to the WV 21st Century Content Standards and Objectives (CSOs) and access skills (social, motor, and communication) not directly addressed in the CSOs, but embedded in instructional standards-based activities.
 - The student cannot participate in the WESTEST 2 and other components of the WV-MAP, even with accommodations. The reasons why the student cannot participate must be clearly stated on the IEP.
 - In addition, if the student is fourteen years of age or older, and it has been determined by the IEP Team that the student is unable to complete the state and county standard graduation requirements necessary to earn a standard diploma, even with extended learning opportunities and significant instructional modifications, the student will work toward a modified diploma, Please note: not all students earning a modified diploma must take the APTA; however, students working toward a standard diploma do not meet criteria for the APTA.
- If the student meets all of the criteria, the IEP documents must include a justification statement for the APTA. For additional information, see Policy 2510, Assuring the Quality of Education: Regulations for Education Programs (WVDE, 2009f).”

Gender and Ethnicity

Demographic data, such as for gender and ethnicity information, are reported in Tables 5–7.¹ Organized by grade and content area, summary score and reliability statistics include data by Total, Female, Male, African American, Asian/Pacific Islander/American Indian/Alaskan Native, Hispanic, White (not Hispanic), and Other groups.

The greatest number of students to participate in a given grade and content area was 281 in grade 4 across all three content areas, and the least was 248 in grade 3 Reading/Language Arts (see Figure 1). In all grades and content areas, the population of students is primarily Male, with the percentages of Male students ranging from 62% (grade 7 Reading/Language Arts) to 68% (grade 4 Mathematics and Reading/Language Arts). Additionally, the majority of students are of White (not Hispanic) ethnicity, with the percentage of White (not Hispanic) students ranging from 90% (grade 11 Reading/Language Arts) to 94% (grade 3 Mathematics).

Disability

Test examiners coded students' disabilities at test-taking time. To improve the data quality of disability codes collected for each student, the method of coding was changed beginning in 2008 from the prior approach. Test examiners assigned one code to represent students' level of cognitive functioning as one of the four levels: Mild, Moderate, Severe, and Profound Mental Impairment. Secondary disability codes included all possible disability categories, per students' IEP. These codes included 11 categories: Autism, Blind, Deaf, Deaf and Blind, Hearing Impaired, Orthopedic, Other Health Impairment, Partial Sighted, Speech Impairment, Traumatic Brain Injury, and More than One.

Tables 8–10 illustrate summary information based upon the students' level of cognitive functioning. With just one exception, across grade levels and content areas, the dominant level of cognitive functioning is Moderate Mental Impairment, followed in percentage by Mild Mental Impairment. At grade 7, the percentage of students with a Mild Mental Impairment exceeds the percentage with a Moderate Mental Impairment by approximately 2%. Figure 2 also illustrates that most students are indicated with a Moderate Mental Impairment, followed by a Mild Mental Impairment.

Tables 11–13 illustrate summary information based upon the students' indicated disability. For those students with valid responses to this data, the most prevalent disability indicated at grades 3, 4, and 6 is More than One, at grades 5, 7, and 8 the most prevalent disability indicated is Speech Impairment, and at grade 11 Other Health Impairment is the most frequently indicated disability.

Accommodations

Data were also collected on the types of accommodations provided to students during the WV APTA administration. While the test is a one-on-one administration, teachers utilized a variety of additional accommodations to ensure accessibility by students of the test items. Summary data by accommodation categories are reported in Tables 14–16. To improve the data quality of accommodation codes collected for each student, the method of coding was changed in 2008. Beginning in 2008, test examiners assigned students' accommodation codes as one of the approved accommodations for WV APTA takers: Assistive Technology, Braille, or Signing.

It was found that the vast majority of students do not require additional accommodations in order to access the WV APTA items. From 94% (grade 7 Mathematics and Reading/Language Arts) to 98% (grade 6 Science) of students require no additional accommodations on the WV APTA. As Figures 3–5

¹ Subgroups with fewer than ten students have only sample sizes reported (no statistics are calculated or reported) in accordance with FERPA regulations. This rule is instituted throughout all tables, figures, and reporting.

illustrate, for those students using accommodations, the majority of students used Assistive Technology across grade levels and content areas. For future development of the WV APTA program it is recommended that, the use of translations, language demands of the test, and home/primary language be included in biographical data in order to evaluate the accessibility of the WV APTA items to English language learners.

Part 4. Test Administration

CE 4.3

For all content areas, each test is administered on an individual student basis where teachers/test administrators mark each student's response, response mode (i.e., how the student responded; for example, writing, pointing, eye gazing, signing), and the prompt type or level of assistance provided. Teachers marked actual student raw responses in addition to marking the response and prompt (i.e., level of assistance) type in the actual test booklet.

Test Examiners Training

County Test Coordinators and Special Education Directors were convened for a train-the-trainer model of training on the administration of the WV APTA, which was jointly provided by the Office of Assessment, Accountability, and Research and the Office of Special Education. The 2009 *Examiner's Manual* (WVDE, 2009a) for the WV APTA was used as a training resource for the group. The participants were responsible for the training of the WV APTA test examiners within their counties.

Additional Training

As the results of the administrations are evaluated, continuous improvements in administration training will be ongoing. The Office of Special Education will continue to provide professional development for teachers on how to teach the *West Virginia Extended Academic Content Standards*. The Office of Assessment, Accountability, and Research will continue to provide staff development on the operational administration and scoring of the WV APTA.

Part 5. Scoring

CE 4.3

This section addresses the handscoring procedures followed for the 2008–09 WV APTA administration, explaining the development of materials and the handscoring process in detail.

Scoring Rubrics

Scaffolded scoring rubrics have been used in the development and administration of alternate assessments. Thompson, Thurlow, Johnstone, and Altman (2005) found that 25 states use a scoring rubric that incorporates level of assistance (LOA). Almond and Case (2004) note that such a scoring approach, where LOA (i.e., a proxy for the level of independence) is captured, can be extended to reflect scoring accuracy and provide additional and appropriate data for students with significant cognitive disabilities who were administered performance-type assessments.

From a validity perspective, Schafer (2005) noted that on alternate assessments, where degree of support is important, the “degree of support could be combined with the task descriptions to define individualized achievement targets” (p. 4), such that the interpretations (i.e., validity) of the test scores can be accurately reflected and contextualized and not present a misleading interpretation—artificially low or high scores.

Based on these arguments, each WV APTA item was scored using a specific scoring rubric that incorporated the level of independence with which a student responded, operationalized by the LOA the student received. This type of score was developed in an effort to (a) align to and reflect the extended

content standards and (b) recognize and capture how students taking the WV APTA actually respond. Standards for the WV APTA are very specific about these LOA, and incorporating a rubric that reflects these levels was a logical approach to support the intent of the standards.

Table 17 provides the scoring rubric for all right/wrong responses (i.e., the MC-type items). These are items in which students respond by selecting the correct answer among options, similar to traditional MC items. MC items utilizing this rubric are found at all grade levels and for all content areas assessed by the WV APTA. The student response is evaluated as correct or incorrect (i.e., dichotomous) and then, depending upon the LOA, a final score is provided. For example, the student or examiner marks the response option chosen or demonstrated by the student. If the student received no help (i.e., LOA is “independent”), the teacher marks Level 3. If the response option is correct, the student would receive a score of 3 on that item. If the option is incorrect, the student would receive a score of 0. However, the information about LOA is still collected to provide item- and test-level data on the amount of assistance students receive when their level of content knowledge is incorrect. This is important information for policy development and training purposes. With this information, teachers can be trained to assist students accurately without overassisting, and to provide adequate support to students while allowing them opportunities to grow independently, as well as to provide a clearer evaluation of what students really know and can do academically.

Similarly, there are CR-type items where student responses reflect multiple steps or where students provide multiple responses. The rubric for CR-type items is found in Table 18. CR items utilizing this rubric are found at most grade levels and for all content areas assessed by the WV APTA. For multiple responses, the student receives up to two points for each correct response. This is akin to a 0–2 rubric. For example, an item might require the student to correctly group positive and negative numbers. The teacher marks the frequency of numbers correctly identified (e.g., 5 out of 5, 3 or 4 out of 5, 2 or fewer out of 5). If the student grouped all numbers correctly (e.g., 5 out of 5) and did so independently, a score of 6 is awarded. If the student grouped only some of the numbers correctly (e.g., 3 out of 5) and did so with some help (Level 2, “Partial”), then that student would receive a score of 3, meaning “partially correct/some error.” Note that the final scoring is completed during a scoring conference, described below, which is based upon the teacher-marked responses. Therefore, all items are designed such that the teacher can document the student response from a content perspective, as well as the LOA, from which scorers assign scores item by item.

Scoring Conference

Following the operational administration, the WVDE Office of Assessment, Accountability, and Research, the Office of Special Education, and a steering committee consisting of content specialists, standards committee members, and special education teachers participated in scoring the WV APTA in West Virginia. The scoring group reviewed scoring methodologies, finalized scoring guides, and completed the selection of anchor papers.

Score Validation

All students who participated in the administration were scored. The validity of score interpretation is dependent on data quality. Therefore, specific validation and logic rules were applied *post hoc* to ensure that each student’s score was based on a valid set of items. Safeguards were used to ensure that data reported was valid and could contribute to appropriate decision making. For example, if a student’s test was marked as “invalid” by the test examiner via a specific bubble on the answer document/rating form or if a student’s response array included 15% or more flagged items, the student did not receive a score. Student items were flagged if, for example, the scores were out of range (beyond the maximum value), they were invalid or illogical (e.g., a LOA=1 “Full” and an incorrect answer was marked), they contained multiple marks (i.e., more than one response option or LOA bubbled), or they had an incomplete response (i.e., either the response option or LOA was missing).

A summary of the percentages of invalid test scores is presented in Table 19. More than 96% of the students tested received valid score status in all grade levels and content areas. Of those few students whose scores were invalidated, on average the invalidation was due to the 15% rule as opposed to invalidation by the test examiner.

Rater Reliability

Two scorers reviewed each student's item responses. In cases where ratings were discrepant, a third, more experienced rater provided the final score.² The raw scoring by each rater was used to calculate inter-rater reliability (IRR) statistics, including perfect and adjacent scoring.

Inter-rater reliability, or IRR, describes how consistent, or reliable, raters are at providing the same (i.e., "perfect") or adjacent scores across first and second readings of an open-ended item. Multiple handscorers, or raters, scored all items, even MC items.

Because most of the WV APTA items are MC, scoring was more of a reflection of hand documentation of the prompt level and accuracy of response. Therefore, CR items are those for which the IRR reflects the traditional understanding. The MC-type items' IRR reflect the accuracy of the handcoding by the scorers. This is an important distinction when considering the reliabilities listed in Tables 20–22. The reliability of coding is also important when considering topics for test administration training.

For the WV APTA, we consider the percent of perfect and adjacent scores, as well as a statistical index that measures the reliability in handscoring processes, i.e., the kappa statistic. The percent of perfect and adjacent agreement ratings are listed for each MC and CR item in Tables 20–22. The mean percent of perfect agreement was 99.19%³ across all Mathematics items, 99.23% across all Reading/Language Arts items, and 99.40% across all Science items.

Tables 20–22 also indicate consistency between first and second readers in terms of the kappa statistic. The kappa reliability statistic for Mathematics ranged from 0.91 to 1.00 with a mean of 0.99, for Reading/Language Arts ranged from 0.85 to 1.00 with a mean of 0.99, and for Science ranged from 0.95 to 1.00 with a mean of 0.99. For the 6-point items, those items similar to traditional CR items, the kappa statistics for the 12 Mathematics items ranged from 0.92 to 1.00 with a mean of 0.96, the 15 Reading/Language Arts items ranged from 0.96 to 1.00 with a mean of 0.98, and the 14 Science items ranged from 0.95 to 1.00 with a mean of 0.98. These indicate an acceptable level of consistency or reliability in the scoring of the items.

Part 6. Analyses and Results

CE 1.3

This section describes the item and total test statistics calculated and analyzed, along with the results thereof. Due to the small sample sizes at each grade level (equal to or less than 281), only raw score statistics were calculated. These include raw scores at the total test level and at each extended content standard. No scaling of scores was conducted. Furthermore, because the same test form is used each year, no equating was or will be conducted. This requires heavy reliance on raw score and classical test statistics.

Item-Level Statistics

Each test was first reviewed in terms of classical raw score statistics. Items were flagged for review based on the following statistical characteristics, delineated by Schmeiser and Welch in Brennan (2006, p. 338):

² The items were not given the mean of scores or the most frequent score as is sometimes the case in other handscoring approaches.

³ Note that these statistics could be inflated due to the document scoring methodology.

1) if the p -value was less than 0.30, 2) if the point biserial value was less than 0.20, and 3) if more than 5% of students omitted an item. Additionally, items were flagged for intensive review when the point biserial value for a distractor was greater than that for the key, and if the p -value for the item was greater than 0.90. Each item's frequency distribution (number of students at each score level), as well as each item's overall p -value (item difficulty; the proportion of students choosing the correct answer) and point biserial correlation (item-test correlation; how correlated each individual item is with the test as a whole) was reviewed and results are presented in Tables 24–26 and discussed below.

The frequency distribution for each CR item is found in Table 23, where the number of students scoring at each score level for all 6-point items is illustrated. Interestingly, most CR items illustrate similar distributions, such that the majority of students obtain either the minimum (0 points) or the maximum (6 points). This result could very well be reflective of characteristics of students within this population. Teachers in WV and other states have mentioned that their students who are eligible for alternate assessments can be distinguished into two groups by the severity and/or nature of their disabilities: (a) those students who are generally nonresponsive or are presymbolic and (b) those students who are responsive or are considered symbolic.

Due to the nature of the rubrics, where LOA weights each student's score, data analyses were conducted in two working sets:

1. The weighted set (with level of assistance) based on both student response and LOA (data as received and used for operational scoring and reporting); and
2. The nonweighted set (without level of assistance) based on the transformation of all scores of 0–2 as “0” and all 3's as “1” for MC items and all scores of 0, 1, 3, and 5 as “0” and 2, 4, and 6 as “1” for all CR items scored on the 6-point rubric (see Table 23).

The purpose for removing the level of assistance from the data is to provide information about content-only performance apart from prompting or teacher-provided assistance (see Tables 24–26). Additionally, classical item analysis indices typically assume that the item score is related only to item performance, and not any additional information (Gulliksen, 1950).

There were three Mathematics items within the context of the 2009 administration that were anomalies; however, they remained in the scoring and reporting. The first is item 2 in grade 6, where all students had the item marked as correct due to a printing error (p -value=1.00, correlation=0.10). The second is item 22 in grade 6, where some students had the item marked as correct due to a printing error (p -value=0.48, correlation=0.38). The third is item 5 in grade 11, where many students had the item marked as correct due to a printing error (p -value=0.86, correlation=0.37). However, there were teachers who corrected the printing errors prior to providing the item to the students for grade 6 item 22 and grade 11 item 5; therefore, these items were not counted as correct for all students. As these items were all included in scoring and reporting for the assessment, they remain included in all analysis unless otherwise noted.

Item Difficulty (p -values)

Typically in traditional assessments, and as seen in similar alternate assessments, p -values range between 0.30 and 0.90. Items with p -values less than 0.30 are considered more difficult, as less than 30% of the students are getting the correct answer, while p -values greater than 0.90 indicate relative ease of the item. In some instances, the lower bound of p -values can drop below 0.30. Those items must be reviewed in light of content to ensure the difficulty is due only to the newness of content and skill assessed and not due to some illogic within the item. Items that are unduly easy or above 0.90 should be reviewed in light of content as well and a determination made whether the item is providing additive information about students' skills. If the items are too easy, they are typically replaced by items that better discriminate between students who do show the necessary knowledge or skill and those who do not. These approaches make for efficient use of test length and administration time. Additionally, mean p -values by grade level should be approximately 0.50 in order to maximize the validity of the assessments (Gulliksen, 1950).

Tables 24–26 show the item-specific p -values (item difficulty) and point biserials (item-test correlation) for all three content areas respectively. Statistics with level of assistance included are reported first and those without level of assistance data second. Table 27 shows the summary information across each grade level and content area with level of assistance included, as is done in operational scoring and reporting. The mean p -values range from 0.62 (grade 11 Mathematics) to 0.80 (grade 11 Reading/Language Arts).

The 2008–09 p -values generally fell within acceptable ranges indicating that items, in general, were not too easy or too difficult for the tested population as a whole. The Mathematics items ranged from 0.26 to 1.00 when incorporating LOA (Mean=0.70) and 0.21 to 1.00 when treating items dichotomously (Mean=0.65). If the three items with printing errors are not considered, the Mathematics items ranged from 0.26 to 0.92 when incorporating LOA (Mean=0.70) and 0.21 to 0.89 when treating items dichotomously (Mean=0.65). There were just two Mathematics items with p -values less than 0.30: one in grade 6, item 5, p -value=0.29, measuring Geometry; the other in grade 7, item 29, p -value=0.26, measuring Numbers and Operations. In Reading/Language Arts, p -values ranged from 0.29 to 0.95 when incorporating LOA (Mean=0.76) and from 0.26 to 0.92 when treating items dichotomously (Mean=0.71). There was just one Reading/Language Arts item with a p -value less than 0.30: in grade 8, item 15, p -value=0.29, measuring Writing. In Science, the range of p -values was from 0.41 to 0.93 when incorporating LOA (Mean=0.75) and from 0.36 to 0.90 when treating items dichotomously (Mean=0.70).

The difference in the statistics as computed with and without LOA included in scoring was also addressed. It was found that for all content areas, items are estimated to be easier (on average) when LOA is included in the scoring. For Mathematics and Reading/Language Arts the mean difference is 0.05, while for Science the mean difference is 0.06.

Item Discrimination

The point biserial correlation, a derivation of the Pearson product moment correlation, is used here as an index of item discrimination. The point biserial correlation assumes that item responses are based upon a dichotomy, or right and wrong responses. Additionally, there is no assumption of normality of the data, which is important given the frequency distributions observed (Schmeiser & Welch, 2006). Further, given that the value of the point biserial correlation tends to be lower than the biserial correlation due to sensitivity to item difficulty, a conservative approach was chosen and point biserial rather than biserial correlation coefficients are reported. Due to the assumption of a dichotomous variable (correct versus incorrect item response), the data in Tables 24–26 illustrate the values both with and without LOA included in scoring. When the values include LOA, the assumption of a dichotomous distribution is violated. When the values do not include LOA, a dichotomy is possible for MC items.

Acceptable point biserial item-test correlations are usually in the range of 0.30 and above. Crocker and Algina (1986), following Ebel (1965), suggest that point biserial correlation values for items to be retained operationally should be significantly greater than zero, where significance is established by computing an approximation for the standard error for the Pearson product moment correlation. This approximation is based upon the sample size for each item, and the critical value should be set two standard errors above zero. The approximation is computed as one divided by the square root of the quantity of the sample size minus one. With the WV APTA data, the minimum number of students tested, over all content areas, is 248 (grade 3 Reading/Language Arts). Using this as the minimum N value, though it is noted that responses to individual items may have slightly lower N values, the obtained value is 0.0636. Thus the critical value for the correlation would be 0.1273. The only WV APTA item with a point biserial value lower than 0.13 is the grade 6 item with a printing error. All other WV APTA items have point biserial values greater than or equal to 0.13. A generally accepted critical cutoff for student assessments is 0.15, as with increasing sample sizes the formula above would ultimately provide for results that were not substantively different from zero. It is important to note that threshold values will vary based upon the purpose of the assessment and the needs of the testing program.

Tables 24–26 illustrate the item-level data for each content area. The data are presented both with and without LOA included in the scoring. Table 27 provides a summary including the minimum, mean, and maximum values for each grade level and content area with LOA included in the scoring, as is done with operational scoring and reporting.

The ranges and means of the Mathematics, Reading/Language Arts, and Science point biserial correlations were reasonable. For Mathematics, point biserials ranged from 0.10 to 0.79 including LOA (Mean=0.54) and 0.12 to 0.81 without LOA considered (Mean=0.61). If the three items with printing errors are not considered, the Mathematics items ranged from 0.13 to 0.79 when incorporating LOA (Mean=0.54) and 0.18 to 0.81 when treating items dichotomously (Mean=0.61). Reading/Language Arts point biserials ranged from 0.22 to 0.79 including LOA (Mean=0.59) and 0.31 to 0.82 without LOA (Mean=0.65). Finally, Science point biserials ranged from 0.29 to 0.70 with LOA (Mean=0.55) and 0.38 to 0.80 without LOA (Mean=0.63).

For the WV APTA there are just three items with point biserial values near the cutoff, all in Mathematics. In grade 7, item 28 has a point biserial value of 0.15 and a p -value of 0.35. This item measures Numbers and Operations. In grade 8, item 8 has a point biserial value of 0.13 and a p -value of 0.30. This item measures Measurement. Finally in grade 8, item 37 has a point biserial value of 0.15 and a p -value of 0.36. This item measures Measurement.

The difference in the statistics as computed with and without LOA incorporated was also addressed. It was found that for all content areas, item discrimination statistics increased (on average) when items were dichotomized. For Mathematics and Reading/Language Arts the correlations increased on average by 0.07, while for Science the increase, on average, was 0.08 when LOA was removed from item scoring.

CE 1.3, 5.2

Content Standards-Level Statistics

Student performance on individual content standards is reported in terms of the percentage of items within each standard that students answered correctly and are illustrated in Tables 28–30. This proportion can be considered an average p -value across items within a specific standard. The standards' p -values can also be compared from the standpoint of balanced difficulty across the standards. To illustrate the level of difficulty by standard, standards at each grade are ranked according to the average proportion of students responding correctly to items within each standard. This type of analysis is also meant to show the most difficult standards for the tested population.

The results of the standards-level rankings are reported in Tables 28–30. As the tables indicate, the areas that were difficult for students vary by grade in all content areas. In Mathematics the least difficult for grades 3–5 and 8 was Standard 1.1, Numbers and Operations. Grade 6 students found Standard 2.1, Algebra the easiest (when not counting the item with the printing error at Standard 4.3). Students in grade 7 found Standard 4.1, Measurement the easiest. The least difficult for grade 11 students was Standard 5.1, Data Analysis and Probability. The most difficult standards for grades 3, 4, 6, and 8 were focused on Measurement, while for grades 5, 7, and 11 the most difficult standards focused on Numbers and Operations.

In Reading/Language Arts, Standard 1.1, Reading was the least difficult for grades 3 and 6–8. The least difficult for grades 4 and 5 students was Standard 3.1, Listening/Speaking/Viewing. Students in grade 11 found Standard 1.2, Reading to be the easiest. The most difficult at grade 3 was Standard 1.2, Reading. For grade 4 students the most difficult Standard was Standard 2.2, Writing. Grade 5 students found Standard 1.1, Reading to be the most difficult, while students in grades 6–8 and 11 found Standard 2.1, Writing to be the hardest.

Mean p -values in Science were highest in grade 4 for Standard 2.3, Content of Science, and lowest for Standard 3.1, Application of Science. In grade 6 the least difficult was Standard 2.2, Content of Science,

while the most difficult was Standard 1.1, Nature of Science. For grade 11 the least difficult was Standard 1.1, Nature of Science, and the most difficult was Standard 2.2, Content of Science.

Total Test-Level Statistics

Student performance is described in different ways in this report, including total raw scores, performance on specific content standards, and proficiency levels.⁴ The maximum number of points per grade and content area varies across grade levels and content areas and can be found in Table 4. Given that the maximum number of total possible points varies by grade level within content areas, as seen in Table 4, Figures 6–11 illustrate mean scores as the percent of the total possible score. For example, if the mean score was 60 for a test with 120 total possible points, the figures would illustrate that the mean score was 50% of the total possible score. In this way, differences in mean scores that are related to the number of possible points are not directly confounded. It is important to note that the forms are not equated across grade levels, so comparisons in performance across grade levels are not appropriate.

The raw score performance statistics by grade level and content area, broken down by gender and ethnicity, can be found in Tables 5–7. In general, Males and Females perform similarly across all content areas (Figures 9–11). Raw score frequency distributions by grade level and content area are found in Tables 34–36.

CE 2.1, 2.3.1, 5.6

Proficiency-Level Data

Student performance on the WV APTA is also described in terms of proficiency levels. The purpose of setting performance standards on a test is to enhance its validity by increasing the interpretability of test takers' scores. CTB and the WVDE conducted a standard setting workshop for Mathematics and Reading/Language Arts in West Virginia on March 24–26, 2006, and for Science on July 30–August 1, 2007. Full documentation of the process used, validity evidence, and results of both standard setting efforts can be found in the technical reports (CTB, 2006 and 2008).

Table 32 details the final cut scores for each proficiency level by grade level and content area, along with the associated impact data (percentages of students in each proficiency level). To see the impact data in graphical form, refer to Figures 12–14. All impact data are calculated on the basis of performance on the 2008–09 WV APTA administration; however, the cut scores were developed at the 2006 and 2007 standard settings. Overall pass rates, as defined by the combination of the two highest proficiency levels, *Mastery* and *Above Mastery* (and shown in Figure 15), are highest for Mathematics grade 5, Reading/Language Arts grade 7, and Science grade 4.

Part 7. Summary of Results—Reliability and Validity

CE 6.1

This section summarizes results and describes some of the evidence that establishes the degree to which the WV APTA results are reliable and valid.

Reliability

Assessment scores always contain some amount of measurement error. There are two types of errors customarily defined in measurement: random and systematic. Both random and systematic errors can easily threaten and compromise the accessibility and therefore the precision, reliability (to include accuracy), and validity of an assessment.

⁴ Documentation of which are described in detail in the WV APTA Standard Setting technical reports (CTB, 2008 and 2006).

Random errors are just that—random. They are varied, inconsistent, and usually inherent to the assessment or administration itself. Standardization of assessments is meant to minimize random error that occurs because of random factors that affect a student's performance on the assessment.

Systematic errors are inherent to examinees and are typically specific to some subgroup characteristic (i.e., students who need accommodations but are not offered them). Systematic error arises if the test or test administration in and of itself presents an inaccessible situation of students to items and items measuring to student ability. An example of a systematic error is when students with disabilities are administered a test without the accommodation(s) they require (for example, giving a blind student a regular, non-Braille, non-Large Print form). Other systematic errors can include improper test administrator training, mishandled test materials, or scanner malfunctions.

Errors are additionally introduced if the sampling of content on a test is too narrow and does not provide a solid representation of the skills being measured. This is circumvented by clear blueprints that show a variety of items and item approaches to assess each standard.

Reliability refers to the degree to which students' scores are free from such errors and provides a measure of consistency. In other words, reliability helps to describe how consistent students' performance would be if given the assessment over multiple occasions.

For the WV APTA, several measures of reliability are available. First, the tests are administered in standard fashion to all students, where test examiners administer the assessments to the students in an individualized manner. In addition, students all respond to the same items in the same forms and those who need accommodations in order to access the test items are provided such. Providing accommodations ensures that what is standard for the student in daily instruction carries over to and supports the validity of the WV APTA administration. CTB's policy (CTB, 2004) on accommodations and their use on standardized tests stands by the philosophy that what is standard for the student in the classroom and instruction should be what is standard for that student during the assessment, minimizing systematic errors.

Item-Specific Reliability

Item-specific reliability statistics include IRR (i.e., percent agreement and kappa) and point biserial correlations (i.e., item-test correlations). The IRR across items in terms of the kappa statistic is one way to measure the consistency of the hand scores. As Tables 20–22 show, the IRRs range from 0.85 to 1.00. Typically, kappa statistics in the range of 0.80 and above are acceptable and preferred. No items fell below the 0.80 threshold.

The point biserial correlation, a type of internal consistency measure for a given item, is one measure of the correlation between each item and the overall test. This provides an indication of how consistently each item measures information similar to the other items on a test measuring a single overall construct. Tables 24–26 illustrate the point biserials item by item, while Table 27 summarizes point biserials (and p -values) for each grade level and content area based upon the operational scoring, including LOA in the item scoring. In general, the point biserial correlations are within acceptable ranges and above the critical cutoff value of 0.15, with just four exceptions, as previously noted (the item with the printing error in grade 6, one item in 7, and two items in grade 8).

Total Test Reliability

Test reliability measures consider the level of internal consistency of student performance over all test questions in a given form, the results of which imply how well the questions measure the content domain and could continue to do so over repeated administrations. Total test reliability coefficients, in this case measured by Cronbach's alpha (α) (1951), may range from 0.00 to 1.00, where 1.00 refers to a perfectly

consistent test. Achievement tests are typically considered of sound reliability when their reliability coefficients are 0.80 and above. The total test reliabilities of the WV APTA forms were evaluated first by Cronbach's alpha index of internal consistency (Cronbach, 1951). The specific calculation for Cronbach's alpha is:

$$\hat{\alpha} = \frac{k}{k-1} \left(1 - \frac{\sum \hat{\sigma}_i^2}{\hat{\sigma}_x^2} \right)$$

where k is the number of items on the test form, $\hat{\sigma}_i^2$ is the variance of item i , and $\hat{\sigma}_x^2$ is the total test variance. Cronbach's alpha is appropriate for both dichotomously scored items and those with a wide range of scoring weights (Crocker & Algina, 1986), making it an appropriate statistic for use with the WV APTA.

There are a number of factors that influence reliability coefficients, including group variation, time limits, test length, and the assumption of independence in the data. When the individuals participating in an assessment are sufficiently diverse, the reliability estimates will be increased, while a more homogeneous group will produce lower reliability estimates (Crocker & Algina, 1986). Given the very diverse population of students who participate in the WV APTA, it is likely that the reliability estimates will be quite high. Given that the WV APTA is untimed, time limits are irrelevant. Further, test length has been established based upon sufficient measurement of the standards as identified by the WVDE, thus test length is unlikely to be significantly modified. However, because the teacher is a constant variable across all student responses, the reliability coefficients should be interpreted in light of the fact that the data across items are not strictly independent.

Tables 5–16 show the reliability coefficients, labeled as Coefficient alpha, for all grade levels and content areas at the total and subgroup (gender, ethnicity, disability, and accommodation) levels. As is evident in the tables, the coefficients are quite high. At the total group level (summarized in Table 31), the range for the reliabilities by content area are Mathematics (0.89 to 0.94), Reading/Language Arts (0.89 to 0.95), and Science (0.89 to 0.93). It is likely that the heterogeneity of the WV APTA population contributes to the high reliabilities.

At the subgroup level the reliabilities remain high. As seen in Tables 5–7, the lowest total score reliability by gender is for Females in grade 8 Reading/Language Arts where the reliability value equals 0.87. The lowest total score reliability by ethnicity is for the African American subgroup in grade 11 Science with a value of 0.78 (and just 20 students). The lowest reliability by Mental Impairment, in Tables 8–10, is 0.54 for Mathematics grade 8, Profound Mental Impairment (with an N of 10). For Mental Impairment eleven values (14%) were below 0.80; however, none were below 0.54, and the average sample size for these eleven cases was 48. For Disability classification, in Tables 11–13, there is just one value below 0.80; for Reading/Language Arts grade 8 Missing the reliability is equal to 0.78; all other reliability values are 0.80 or greater. When examining the data by accommodation, in Tables 14–16, it is seen that the lowest total score reliability is 0.85 for Mathematics grade 7 students using Assistive Technology; however, very few subgroups had enough students for reporting (most accommodations have fewer than ten students using the accommodation). In general, the reliabilities are within acceptable ranges.

Another measure of reliability is a direct estimate of the degree of measurement error in students' total score on a test, which for the WV APTA is a raw score. This second measure is called a standard error of measurement (SEM). This represents the number of score points about which a given score can vary, similar to the standard deviation (SD) of a score: the smaller the SEM, the smaller the variability, and the higher the reliability. The SEM values are computed with the following formula:

$$SEM = SD_{TS}(\sqrt{1 - \hat{\alpha}})$$

where SD_{TS} is the standard deviation of the total score and $\hat{\alpha}$ is the result of the calculation of Cronbach's alpha above. The SEMs represent the total standard error of measurement in the raw score metric across all items in a given form. It is important to note that for the WV APTA, each MC item contributes up to 3 points and each CR item contributes up to 6 points.

The SEMs by test for the total group and all subgroups are given in Tables 5–16 and are summarized at the total group level in Table 31. At the total group level, SEMs for Mathematics range from 5.66 (grade 7, 96 possible points) to 6.90 (grade 8, 114 possible points); for Reading/Language Arts from 4.40 (grade 11, 84 possible points) to 6.71 (grade 8, 102 possible points); and for Science from 6.21 (grade 11, 114 possible points) to 7.00 (grade 6, 114 possible points). These are within acceptable ranges given that the WV APTA is on a raw score scale, with each item contributing up to 3 or 6 points (dependent on item type). Therefore, even the highest SEM value of 7.00 (grade 6 Science) reflects approximately two MC items or one CR item.

Classification Consistency and Accuracy

Classification consistency and accuracy are additional measures of reliability, as well as validity. Reliability coefficients, such as Cronbach's alpha, are used to check for the internal consistency within a test. Test-retest reliability requires two administrations of the same test, which requires another testing as an external reference. When retesting students is not feasible, classification consistency is a viable and often utilized alternative. Consistency in the classification sense represents how well two forms of an assessment with equal difficulty agree (Livingston & Lewis, 1995). It is estimated using actual response data and total test reliability from an administered form of an assessment, from which two parallel forms of the assessment are statistically modeled and classifications compared.

Table 33 illustrates classification consistency and classification accuracy indices based on the Livingston and Lewis (1995) method. Note that the values of all indices depend on several factors, such as the reliability of the actual test form, the distribution of scores, the number of cut scores, and the location of each cut score. The probability of a correct classification (PC) is the probability that the classification the student received is consistent with the classification that the student would have received on a parallel form. This is akin to the exact agreement rate in IRR, and the expectation is that this probability would be high. The average PC is 0.73 across all grade levels and content areas and ranges from 0.65 (grade 4 Reading/Language Arts) to 0.83 (grade 5 Mathematics). Probability of misclassification (PM) is simply one minus PC.

The probability of a correct classification by chance (Chance) is the probability that the classification is correct and is due to chance alone. The probability of Chance is estimated under a complete random assignment procedure using the marginal distribution of each form. The Chance probability is expected to be low. Average Chance across all grade levels and content areas is 0.35 and ranged 0.28 (grade 11 Science) to 0.55 (grade 5 Mathematics). A further look by content area revealed an average Chance of 0.37 for Mathematics, 0.35 for Reading/Language Arts, and 0.29 for Science.

Cohen's kappa (kappa) provides the same type of reliability or agreement statistic as described previously with the Livingston and Lewis (1995) method, representing the agreement of the classifications between the two parallel forms with the consideration of the probability of a correct classification by chance,

$$(PC - \text{Chance}) / (1 - \text{Chance}).$$

In general, the value of kappa is lower than the value of PC because the probability of a correct classification by chance is greater than zero. This is true of the WV APTA data in Table 33. Average kappa across the grade levels and content areas was 0.58 and ranged from 0.48 (grade 4 Reading/Language Arts) to 0.63 (grade 5 Mathematics). By content areas, the average kappa was 0.61, 0.56, and 0.55 for Mathematics, Reading/Language Arts, and Science, respectively. The relative similarity in grades with lowest and highest kappa values supports the PC findings.

Consistency and accuracy are important to consider in concert. The probability of accuracy (PA) represents the agreement between the observed classification based on the actual test form and true classification, given the modeled form. The average PA is 0.80 ranging from 0.74 (grade 4 Reading/Language Arts) to 0.88 (grade 5 Mathematics), with averages by content area fairly similar: 0.82, 0.79, and 0.77 for Mathematics, Reading/Language Arts, and Science, respectively. Finally, Table 33 provides the probability of false positives (FP) and false negatives (FN) as measures of error in the data table, and these are low—all less than 0.21—as expected.

Summary of Validity Evidence

Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of the test (AERA, APA, & NCME, 1999). The *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999) addressed the concept of validity in testing:

Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests. Validity is, therefore, the most fundamental consideration in developing and evaluating tests. The process of validation involves accumulating evidence to provide a sound scientific basis for the proposed score interpretations. It is the interpretations of test scores required by proposed uses that are evaluated, not the test itself. When test scores are used or interpreted in more than one way, each intended interpretation must be validated (p.9).

Test validation is an on-going process of gathering evidence from many sources to evaluate the soundness of the desired score interpretation or use. This evidence is acquired from studies of the procedures surrounding the targeted student group, the history of the content standards and their development, and the development of the test (procedural validity); from the content of the test (content validity); and from studies involving scores produced by the test. Additionally, reliability is a necessary element for validity. A test cannot be valid if it is not also reliable. There are various sources of validity evidence, such as evidence based on procedures and processes in the development and scoring of the assessment, alignment of the assessment items with standards, and relations to other variables.

The purpose of the assessment, described in the Overview of this document, is not only to meet accountability requirements but also to provide students, parents, teachers, and schools information on how their students are progressing relative to the *West Virginia Extended Academic Content Standards and Performance Level Descriptors*, as described in Part 1: Standards.

Generally, achievement tests are used for student-level outcomes, either (1) making predictions about students or (2) describing students' performance (Mehrens & Lehmann, 1991). In addition, tests are now also used for the purpose of accountability and measuring AYP. As stated by R. L. Linn (2008), "Tests are used as policy tools to hold teachers and school administrators accountable for student learning and as levers to change instruction in the classroom" (p. 4). The WVDE uses various assessment data in reporting AYP and in various programmatic and policy-level decisions. Specific to student-level outcomes, the WV APTA documents student performance in the areas of Mathematics, Reading/Language Arts, and Science as defined by the *West Virginia Extended Content Standards*. To ensure that test scores allow interpretations appropriate for this purpose, the content of the test must be carefully matched to the specified standards. The 1999 AERA, APA, & NCME *Standards for Educational and Psychological Testing* state:

Important validity evidence can be obtained from an analysis of the relationship between a test's content and the construct it is intended to measure. Evidence based on test content can include logical or empirical analyses of the adequacy with which the test content represents the content domain and of the relevance of the content domain to the proposed interpretation of test scores. Evidence based on content can also come from expert judgments of the relationship between parts of the test and the construct (p.11).

In regard to content validity evidence, logical analyses of test content indicate the degree to which the content of a test covers the domain of content the test is intended to measure. In the case of the WV APTA, the content is defined by test blueprints that describe the skills that must be measured to assess the content standards (WVDE, 2009e). The test development process requires specific attention to content representation and the balance thereof within each test form. In addition, several committees, such as the WV APTA Steering Committee, routinely review and approve items and those that are candidates for inclusion in an operational test, ensuring that they assess the content standards and are mapped accordingly. Part 2: Test Development of this report contains more information specific to these reviews. The reviews also help to ensure fair and unbiased items so that items function similarly for members of different ethnic, gender, or disability groups. In addition, the WV APTA has gone through numerous alignment studies under the direction of Dr. Norman Webb (Webb, 2006 and 2007).

The internal structure of the test also provides evidence of validity. For example, high internal consistency, like that described by the reliability coefficients, constitutes evidence of validity. This is because high coefficients imply that the test questions are measuring the same domain of skill, are reliable, and are consistent.

The validity of an assessment also is evidenced by establishing that the population of students for which the assessment is purposed and built is well targeted and that those are the students who participate. The targeted student population is defined as students with a severe cognitive disability who cannot otherwise participate in the general WESTEST 2 even with accommodations (WVDE, 2009f). Given the high-stakes nature of the WV APTA and the requirements of NCLB and Peer Review Evidence, as well as the need for eligibility criteria data, it is important to note who was actually included in the WV APTA and to gather data on their performance. The total number of students who participated by grade level and content area is illustrated in Figure 1. The number of students in various subgroups who participated along with each group's summary scores is presented in Tables 5–7 (specific to gender and ethnicity), Tables 8–10 (specific to degree of mental impairment), Tables 11–13 (specific to disabilities reported), and Tables 14–16 (specific to accommodations provided).

It is also important to show via student performance that students are able to demonstrate a range of performances commensurate with the expectation of the targeted population. Total raw score results for each grade level and content area for the total groups are found in Table 31, and raw score frequency distributions by grade level and content area are found in Tables 34–36. Data by standard are found in Tables 28–30. These data were reviewed and explained in greater detail in Part 6: Analyses and Results.

An assessment that is valid should be similarly reliable for subgroups of similar sample sizes. Therefore, in addition to the total group data, subgroup total test performance and the associated test reliabilities and standard errors must also be reported. Tables 5–16 show these by total and subgroup for only those subgroups with ample sample sizes to report statistics (no groups less than ten have statistics reported, only sample size information). Specific details on test reliability and standard errors are further described in the reliability section.

Additional evidence that bears on validity is that of the SEM and cut scores. Low SEM values provide further reliability evidence and hence validity evidence about the score use. Details about the methods used to set these cut scores are given in the standard setting technical reports for Mathematics and Reading/Language Arts (CTB, 2006) and Science (CTB, 2008).

Part 8. Special Studies

Special studies, which were conducted as specific data analysis for the WV APTA, are meant to inform policy and provide additional evidences about reliability and validity.

Level of Assistance

To get a sense of the magnitude of the LOA required by students, the percent of each was evaluated. This investigation was meant to highlight whether or not students maintain consistency in the LOA that they require across items. The percentage of total items across all grades, by content area, on which students responded requiring each LOA is found in Table 37. Overall, students responded independently (without assistance) to most items. Eighty-four percent of students responded independently across items in Mathematics and Reading/Language Arts, and 85% in Science. This is likely why the item results, reported in Tables 24–26, with and without assistance are so similar.

Additional Reliability Measures

Additional reliability coefficients were calculated (KR20) in an effort to describe the consistency of the LOA required by students and documented teachers. The KR20 statistics yield the same results as Cronbach's alpha for dichotomously scored items (Crocker & Algina, 1986). The goal was to determine the consistency of the LOA rating for each student, as it was assumed that a student would require approximately the same LOA across all items. The belief is that a student answering an item independently would be likely to answer more items independently than they would be to require assistance (lower levels of independence) on other items. This helps to confirm that LOA is about the student's ability as opposed to the type of item being administered. The concern is that there is no way to determine whether the rating is truly a reflection of the independent functioning of the student or the way in which the test examiner administered the assessment. The reliabilities of the prompt levels, illustrated in Table 38, show that prompt levels were highly consistent, ranging from 0.98 to 0.99 in Mathematics and Science and from 0.97 to 0.99 in Reading/Language Arts. This provides evidence that students are consistent in their needs of assistance or prompting and/or that teachers are consistent in providing such. The fact that students tend to respond independently is a good sign that teachers are not overassisting their students on the WV APTA and provides clearer data on the students' level of content-based understanding.

Student Scores

It is also important to gauge the range of scores across students. One way to look at this is to evaluate the number of students earning the maximum total raw score (the ceiling) and those not earning any points (the floor). This type of data can help provide information regarding eligibility policy. The number of students at the maximum and minimum raw scores for the total student population is found in Tables 5–7 and Table 31. In general, there are fewer students achieving the minimum score as compared to the maximum score. In Mathematics just one student earned the minimum score (grade 5), while between two and 28 students achieved the maximum possible score. In Reading/Language Arts three students earned the minimum score (one student in each of grades 5, 6, and 11), while between five and 47 students achieved the maximum possible score. In Science two students earned the minimum score (one student in each of grades 6 and 11), while between six and 16 students achieved the maximum possible score. This information is also illustrated by subgroups in Tables 5–16.

Another way of looking at this is to view the distribution of students across the raw score scale. Raw score frequency distributions are found in Tables 34–36. It is clear from these that students are fairly evenly spread out across the range of scores.

Part 9. Longitudinal Data

Mathematics and Reading/Language Arts comparisons examine the differences between 2005–06, 2006–07, 2007–08, and 2008–09, while Science comparisons examine differences between 2007–08 and 2008–09 as 2007–08 was the first operational Science assessment. Throughout this section differences are calculated as

the most recent year compared to the prior year. As such, differences are 2008–09 minus 2007–08 and 2007–08 minus 2006–07, and so forth as appropriate. Given this calculation of differences, negative values indicate that the values have decreased in the more recent year.

Additionally, it is important to note that in the 2008–09 year, there was a change in the highest grade level assessed. The change in the grades for administration were pursuant to WV Board of Education Policies 2510 (WVDE, 2009d) and 2520.16 (WVDE, 2009e). In light of the change in grade levels assessed, there are no longitudinal comparisons for grade 11.

Over time it would be expected that there would be only minimal differences in test statistics such as p -values (item difficulty) and point biserial correlations (item-test correlation), assuming that the tested population remains stable. Given the reporting and use of raw score results without equating, the assumption of relative population invariance becomes critical in the examination of student performance over time.

Figure 16 illustrates the change in the population, by N Difference, from 2007–08 to 2008–09 for Mathematics, Reading/Language Arts, and Science. There were decreases in the number of students participating across the two assessment years for Females in Science, for African Americans in Mathematics and Reading/Language Arts, and for Asian/Pacific Islander/American Indian/Alaskan Native and Other across all three content areas. For all remaining groups, there were more students in 2008–09 than in 2007–08.

Mathematics

Table 39 illustrates the means and standard deviations at the total group level by grade for Mathematics. It is seen that the changes in the mean scores from 2005–06 to 2006–07 were larger on average than differences for the other years, with an average difference in mean scores of nearly six points. From 2006–07 to 2007–08 the average difference in raw score was nearly two points, while for 2007–08 to 2008–09 the average difference in mean raw score was just one point. On average, the mean scores have increased over time, with only three decreases in mean scores being seen: one for the 2006–07 to 2007–08 difference at grade 7, and two for the 2007–08 to 2008–09 difference at grades 3 and 8. This trend is also illustrated in Figure 20 where the mean score as a percent of the total possible score is presented.

Table 42 illustrates the population of students participating in the WV APTA Mathematics assessment based upon gender and ethnicity. The largest changes are apparent for the gender groups, with the largest differences being 6% for Females and Males at grades 3 and 8 between the 2006–07 and 2007–08 assessment years. For ethnicity, the largest change is a 4% decrease in the number of African American students in 2008–09 as compared to 2007–08.

Item statistics by year are illustrated in Table 45. Statistics as computed with and without LOA incorporated in item scoring are presented for each year of the assessment, as well as the differences across years. The p -values for 2005–06, 2006–07, 2007–08, and 2008–09 are illustrated in Table 48, providing results of the difference between years. The mean p -values have stabilized since the initial administration, with the differences between 2007–08 and 2008–09 ranging from -0.02 to +0.02. The mean p -value by year is illustrated in Figure 17. It is seen that in general the mean p -values are increasing over time, with small decreases at grades 3 and 8 in the 2008–09 year. Table 51 illustrates the point biserial statistics for 2005–06, 2006–07, 2007–08, and 2008–09 and provides results of the differences. The mean point biserials remain stable across administrations.

The impact data for 2005–06, 2006–07, 2007–08, and 2008–09 are presented in Table 54. In general, it is seen that over time there are fewer students classified as *Novice*, with a greater percentage classified as *Above Mastery*. Figure 23 illustrates the percentage of students scoring within the *Mastery* and *Above Mastery* levels in each assessment year. It can be seen that for grades 4 and 5, the percentages are increasing every year. For grades 6 and 8, the percentages went up for the first few years, but decreased somewhat with the most recent

administration. For grade 3, the percentage went up from the first year to the second, but has decreased somewhat since then, and for grade 7, the percentage went up, then down, and then back up again.

Reading/Language Arts

Table 40 illustrates the means and standard deviations at the total group level by grade for Reading/Language Arts. It is seen that the changes in the mean scores from 2005–06 to 2006–07 were larger on average than differences for the other years, with an average difference in mean scores of nearly four points. From 2006–07 to 2007–08 the average difference in raw score was nearly two points, while for 2007–08 to 2008–09 the average difference in mean raw score was a decrease of nearly one point. From 2005–06 to 2006–07 average scores increased in general, with just grade 4 illustrating a decrease in the mean score. From 2006–07 to 2007–08 average scores again increased in general, though grades 6 and 7 illustrate decreases in the mean scores. Finally when comparing the 2007–08 and 2008–09 years, all grades illustrated decreases with the exception of grade 5, where there was an increase in the mean raw score. This trend is also illustrated in Figure 21, where the mean raw score as a percent of the total possible score is presented.

Table 43 illustrates the population of students participating in the WV APTA Reading/Language Arts assessment based upon gender and ethnicity. The largest changes are apparent for the gender groups, with the largest differences being 6% for Females and Males at grades 3 and 8 between the 2006–07 and 2007–08 assessment years. For ethnicity, the largest change is a 4% decrease in the number of African American students in 2008–09 as compared to 2007–08.

Item statistics by year are illustrated in Table 46. Statistics as computed with and without the LOA incorporated in item scoring are presented for each year of the assessment, as well as the differences across years. The *p*-values for 2005–06, 2006–07, 2007–08, and 2008–09 are illustrated in Table 49, providing results of the difference between years. The mean *p*-values have in general stabilized since the initial administration, with the differences between 2005–06 and 2006–07 ranging from 0.00 to 0.07, between 2006–07 and 2007–08 ranging from -0.02 to 0.05, and between 2007–08 and 2008–09 ranging from -0.04 to +0.02. The mean *p*-value by year is illustrated in Figure 18. It is seen that in general the mean *p*-values are increasing over time, with decreases at grades 3, 4, and 8 in the 2008–09 year. Table 52 illustrates the point biserial statistics for 2005–06, 2006–07, 2007–08, and 2008–09 and provides results of the differences. The mean point biserials remain relatively stable across administrations, with the exception of grade 6.

The impact data for 2005–06, 2006–07, 2007–08, and 2008–09 are presented in Table 55. In general, it is seen that over time there are fewer students classified as *Novice*, with a greater percentage classified as *Above Mastery*. The *Novice* percentages ranged from 4 to 10% in 2005–06, while in comparison ranged from 2 to 7% in 2008–09, and the *Above Mastery* percentages ranged from 25 to 41% in 2005–06, while in comparison ranged from 29 to 54% in 2008–09. Figure 24 illustrates the percentage of students scoring within the *Mastery* and *Above Mastery* levels in each assessment year. It can be seen that for grades 5 and 6, the percentages increase or remain the same every year. For grade 3, the percentage increased, then stabilized, and most recently decreased. At grade 4, the percentages decreased initially, but have increased since. For grade 7, the percentages increased, then decreased, and then increased again. Finally, for grade 8, the percentages were increasing, but decreased between the two most recent administrations.

Science

Table 41 illustrates the means and standard deviations at the total group level by grade for Science. It is seen that the changes in the mean scores range from -0.86 to 2.68 points. This trend is also illustrated in Figure 22, where the mean score as a percent of the total possible score is presented.

Table 44 illustrates the population of students participating in the WV APTA Science assessment based upon gender and ethnicity. The largest changes are apparent for the gender groups, with the largest difference being

4% for Females and Males at grade 4. For ethnicity, the largest change is a 4% increase in the percentage of African American students.

Item statistics by year are illustrated in Table 47. Statistics as computed with and without the LOA incorporated in item scoring are presented for each year of the assessment, as well as the differences across years. The p -values for 2007–08 and 2008–09 are illustrated in Table 50, providing results of the difference between years. The mean p -values are stable, with the differences between 2007–08 and 2008–09 ranging from 0.00 to +0.02. The mean p -value by year is illustrated in Figure 19. It is seen that the mean p -values increase over time for grades 4 and 11, while remaining the same at grade 6. Table 53 illustrates the point biserial statistics for 2007–08 and 2008–09 and provides results of the difference. The mean point biserial differences range from 0.01 to 0.05 across the two administrations.

The impact data for 2007–08 and 2008–09 are presented in Table 56. Figure 25 illustrates the percentage of students scoring within the *Mastery* and *Above Mastery* levels in each assessment year. It can be seen that for grades 4 and 11, the percentages increased across the two years; however, the percentage decreased somewhat for grade 6.

Conclusion

The 2008–09 WV APTA Technical Report documents the processes and procedures implemented to support the 2008–09 spring WV APTA administration by the WVDE and CTB. This technical report shows how the applied processes and procedures, as well as the results, relate to the issues of validity and reliability, the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999), and the federal Peer Review process.

The WV APTA began with the item and test development process. Alternate assessment standards were developed for the WV APTA in accordance with NCLB regulations, requiring that the content of alternate assessments be comparable to that of regular state assessments, and that they must show clear linkage to the content standards for the grade in which the student is enrolled. The 2008–09 WV APTA forms consisted of custom MC and CR performance task items, measuring skills associated with the *West Virginia Extended Content Standards* for Mathematics, Reading/Language Arts, and Science. Raw scores incorporating both content knowledge and the LOA with which the student responds to the item are reported and analyzed at the level of the item, the standard, and the total score for the content area. The reliability and validity of all applied processes, procedures, and the results were evaluated. A brief content summary of the technical report is provided below:

Test Development (Part 2)

- Pursuant to WV Board of Education Policies 2510 and 2520.16 (WVDE, 2009d and WVDE, 2009e), the grade levels for administration for Mathematics and Reading/Language Arts changed from grades 3–8 and 10 to grades 3–8 and 11. This change applied to the spring 2009 assessment.
- Items for spring 2009 were the same as those used in the spring 2008 forms (grade 10 items were used at grade 11).
- Review of items with classical item statistics yielded no rationale for item scoring suppressions.

Description of the Population (Part 3)

- Students have significant cognitive disabilities.
- Participation in the WV APTA is determined on the basis of WV Board of Education Policies 2340, 2419, and the eligibility criteria provided by the WVDE (WVDE, 2009f).

- Population characteristics
 - Participation rate ranges from a minimum of 248 students (grade 3 Reading/Language Arts) to a maximum of 281 students (grade 4 Mathematics, Reading/Language Arts, and Science)
 - Majority Male students, 62% (grade 7 Reading/Language Arts) to 68% (grade 4 Mathematics and Reading/Language Arts)
 - Majority White (not Hispanic) students, 90% (grade 11 Reading/Language Arts) to 94% (grade 3 Mathematics)
 - Moderate Mental Impairment is most common with the exception of grade 7, where Mild Mental Impairment is more common. Range for Moderate Mental Impairment is 40% (grade 7 Mathematics and Reading/Language Arts) to 58% (grade 11 Science)
 - Most common primary disability (when not counting “Missing”) of “More than One” for grades 3, 4, and 6, “Speech Impairment” for grades 5, 7, and 8, and “Other Health Impairment” for grade 11
 - No accommodations, beyond those built into the assessment such as one-on-one administration with no time limits, are provided to most students in order for them to access the WV APTA items

Test Administration (Part 4)

- County Test Coordinators and Special Education Directors are trained on the administration of the WV APTA, with a train-the-trainer model of training provided jointly by the Office of Assessment, Accountability, and Research and the Office of Special Education within the WVDE.
- The test administration window was April 27, 2009, through May 8, 2009.
- Test items appear in one consumable book for each grade level.

Scoring (Part 5)

- Two scoring rubrics are used to collect student responses and provide item-by-item scores.
 - One rubric is for MC items (0 to 3 point score range).
 - One rubric is for CR items (0 to 6 point score range).
- Both rubrics incorporate the LOA required by a student in order to respond to the item within the scoring for the item.
- Scoring is completed at a scoring conference.

Analyses and Results (Part 6)

- Item level statistics, including item difficulty (p -value) and item discrimination (point biserial correlation), were evaluated both with and without the level of assistance with which the student responded to the item included in the calculation of the statistics. Below are the minimum and maximum values, without accounting for the Mathematics grade 6 item that all students were given full credit for, item 2.
 - Including level of assistance
 - P -value minimum = 0.26 grade 7 Mathematics
 - P -value maximum = 0.95 grades 7 and 8 Reading/Language Arts
 - Point biserial minimum = 0.13 grade 8 Mathematics
 - Point biserial maximum = 0.79 grade 5 Mathematics and grade 11 Reading/Language Arts
 - Not including level of assistance
 - P -value minimum = 0.21 grade 6 Mathematics
 - P -value maximum = 0.92 grades 7 and 8 Reading/Language Arts
 - Point biserial minimum = 0.18 grade 8 Mathematics
 - Point biserial maximum = 0.82 grades 4 and 11 Reading/Language Arts

- Student performance on individual content standards was reported in terms of the percentage of items within each standard students answered correctly, an average p -value across the items within each standard.
 - Over all grade levels and content areas, the least difficult standard was for grade 7 Mathematics, Standard 4.1, Measurement, “Determine the volume of an object using non-standard measurement” mean p -value = 0.90.
 - Over all grade levels and content areas, the most difficult standard was for grade 4 Mathematics, Standard 4.3, Measurement, “Identify values of coins and determine their relative values” mean p -value = 0.43.
- Summary descriptive statistics for the reported raw scores were reported for the total group, as well as relevant subgroups, such as gender, ethnicity, degree of mental impairment, disability, and accommodation.
 - Mathematics total group
 - Means range from 57.42 (grade 11) to 94.13 (grade 5)
 - Standard deviations range from 18.55 (grade 7) to 26.70 (grade 5)
 - Reading/Language Arts total group
 - Means range from 56.48 (grade 4) to 90.28 (grade 7)
 - Standard deviations range from 15.25 (grade 4) to 24.66 (grade 7)
 - Science total group
 - Means range from 75.96 (grade 4) to 84.10 (grade 6)
 - Standard deviations range from 20.02 (grade 4) to 23.93 (grade 11)
- The percentage of students at each performance level was analyzed. The ranges for each performance level were:
 - *Novice*: 1% (grades 3–6 Mathematics) to 15% (grade 11 Science)
 - *Partial Mastery*: 15% (grade 5 Mathematics) to 30% (grade 3 Reading/Language Arts)
 - *Mastery*: 12% (grade 5 Mathematics) to 41% (grade 11 Mathematics and grade 4 Reading/Language Arts)
 - *Above Mastery*: 26% (grades 6 and 11 Science) to 72% (grade 5 Mathematics)
 - *Mastery and Above Mastery* combined: 64% (grade 6 Science) to 84% (grade 5 Mathematics)

Reliability and Validity (Part 7)

- The reliability of the 2008–09 WV APTA was estimated in four ways:
 - Point biserial correlation—item-specific reliability⁵
 - Including LOA ranges 0.13 (grade 8 Mathematics) to 0.79 (grade 5 Mathematics and grade 11 Reading/Language Arts)
 - Not including LOA ranges 0.18 (grade 8 Mathematics) to 0.82 (grades 4 and 11 Reading/Language Arts)
 - Internal consistency using Cronbach’s alpha—total test reliability ranges
 - Mathematics: 0.89 (grade 8) to 0.94 (grade 5)
 - Reading/Language Arts: 0.89 (grade 8) to 0.95 (grades 7 and 11)
 - Science: 0.89 (grade 4) to 0.93 (grade 11)
 - Standard error of measurement (SEM)—total test reliability ranges
 - Mathematics: 5.66 (grade 7) to 6.90 (grade 8)
 - Reading/Language Arts: 4.40 (grade 11) to 6.71 (grade 8)
 - Science: 6.21 (grade 11) to 7.00 (grade 6)

⁵ Excluding the 2008–09 Mathematics grade 6 item that was marked correct for all students.

- Classification consistency and accuracy—total test reliability
 - Probability of a correct classification ranges from 0.65 (grade 4 Reading/Language Arts) to 0.83 (grade 5 Mathematics)
 - Probability of accuracy ranges from 0.74 (grade 4 Reading/Language Arts) to 0.88 (grade 5 Mathematics)
 - Kappa ranges from 0.48 (grade 4 Reading/Language Arts) to 0.63 (grade 5 Mathematics)
- The Technical Report provided detailed documentation concerning the different phases of the testing cycle and highlighted the meaning and significance of the procedures, processes, and results, in terms of validity and their relationship to the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999). The final issues in validity were addressed in Part 7.
 - Assessment purpose
 - Content validity evidence
 - Internal structure of the assessment
 - Population of students participating in the assessment
 - Reliability

Special Studies (Part 8)

- Examined LOA across grades by content area across all items in each content area
 - No Response ranges 2.14% (Science) to 2.89% (Reading/Language Arts)
 - Full Assistance ranges 7.54% (Science) to 8.32% (Mathematics)
 - Partial Assistance ranges 4.86% (Reading/Language Arts) to 5.78% (Mathematics)
 - Independent Response ranges 83.63% (Mathematics) to 85.17% (Science)
- Additional reliability coefficient (KR20) to describe the consistency of the level of assistance required by students and documented by test examiners
 - All very high, 0.96 and above
- Range of scores across students—examining the number of students at the ceiling and the floor
 - The most students hit the ceiling in grade 11 Reading/Language Arts (47 students obtain the maximum possible score)
 - One student obtains the lowest possible score (the floor) for grade 5 Mathematics, grades 5, 6, and 11 Reading/Language Arts, and grades 6 and 11 Science

Longitudinal Data (Part 9)

- Completed for all content areas
 - Mathematics and Reading/Language Arts included 2005–06, 2006–07, 2007–08, and 2008–09 assessment years
 - Science examined 2007–08 and 2008–09
- Descriptive statistics
 - Number of students participating from 2007–08 to 2008–09
 - Total number increased for all content areas
 - Gender
 - Number decreased for Females in Science
 - Number increased for all other groups and content areas
 - Ethnicity
 - Numbers decreased for African Americans in Mathematics and Reading/Language Arts, for Asian/Pacific Islander/American Indian/Alaskan Native in all content areas, and for Other in all content areas
 - Numbers increased for all other groups and content areas

- Percentage change over time
 - For gender, the greatest change was in Mathematics and Reading/Language Arts in grades 3 and 8 between 2006–07 and 2007–08 with a 6% change in the percentages of Males and Females.
 - For ethnicity, the greatest decrease was in Mathematics and Reading/Language Arts grade 3 between 2007–08 and 2008–09 with a 4% decrease in the percentage of African American students, while the greatest increase was in Science grade 11 with a 4% increase in the percentage of African American students.
- Differences in raw score means and standard deviations over time
 - Mathematics
 - Mean score increases
 - 2005–06 to 2006–07 all grades
 - 2006–07 to 2007–08 grades 3–6 and 8
 - 2007–08 to 2008–09 grades 4–7
 - Standard deviation increases
 - 2005–06 to 2006–07 grades 4 and 6
 - 2006–07 to 2007–08 grades 3, 7, and 8
 - 2007–08 to 2008–09 grades 3 and 5–7
 - Reading/Language Arts
 - Mean score increases
 - 2005–06 to 2006–07 grades 3 and 5–8
 - 2006–07 to 2007–08 grades 3–5 and 8
 - 2007–08 to 2008–09 grade 5
 - Standard deviation increases
 - 2005–06 to 2006–07 grade 6
 - 2006–07 to 2007–08 grades 3, 5, 7, and 8
 - 2007–08 to 2008–09 grades 3, 6, and 7
 - Science
 - Mean score increases at grades 4 and 11 and decreases at grade 6
 - Standard deviation increases at all grades
- Changes in item statistics⁶
 - *P*-values
 - High values
 - 2008–09 ranged from 0.86 (grade 11 Science) to 0.95 (grades 7 and 8 Reading/Language Arts)
 - 2007–08 ranged from 0.87 (grade 11 Science) to 0.95 (grades 4, 6, and 8 Reading/Language Arts)
 - 2006–07 ranged from 0.88 (grade 6 Mathematics) to 0.95 (grades 3, 8, and 10 Reading/Language Arts)
 - 2005–06 ranged from 0.83 (grade 10 Mathematics) to 0.95 (grade 6 Reading/Language Arts)

⁶ Excluding the 2008–09 Mathematics grade 6 item that was marked correct for all students.
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- Mean values
 - 2008–09 ranged from 0.62 (grade 11 Mathematics) to 0.80 (grade 11 Reading/Language Arts)
 - 2007–08 ranged from 0.59 (grade 10 Mathematics) to 0.79 (grades 4 and 10 Reading/Language Arts)
 - 2006–07 ranged from 0.61 (grade 10 Mathematics) to 0.80 (grade 7 Reading/Language Arts)
 - 2005–06 ranged from 0.52 (grade 10 Mathematics) to 0.76 (grade 6 Reading/Language Arts)
- Low values
 - 2008–09 ranged from 0.26 (grade 7 Mathematics) to 0.65 (grade 5 Mathematics)
 - 2007–08 ranged from 0.03 (grade 4 Science) to 0.62 (grade 6 Reading/Language Arts)
 - 2006–07 ranged from 0.24 (grade 7 Mathematics) to 0.55 (grades 6 and 10 Reading/Language Arts)
 - 2005–06 ranged from 0.17 (grade 10 Mathematics) to 0.52 (grade 4 Reading/Language Arts)
- Point biserial values
 - High values
 - 2008–09 ranged from 0.65 (grade 8 Mathematics) to 0.79 (grade 5 Mathematics and grade 11 Reading/Language Arts)
 - 2007–08 ranged from 0.62 (grade 8 Mathematics and grade 11 Science) to 0.79 (grade 5 Mathematics)
 - 2006–07 ranged from 0.63 (grades 7 and 8 Mathematics) to 0.82 (grade 4 Reading/Language Arts)
 - 2005–06 ranged from 0.63 (grade 7 Mathematics) to 0.83 (grade 3 Reading/Language Arts)
 - Mean values
 - 2008–09 ranged from 0.44 (grade 8 Mathematics) to 0.62 (grades 6 and 11 Reading/Language Arts)
 - 2007–08 ranged from 0.46 (grade 8 Mathematics) to 0.61 (grades 4 and 10 Reading/Language Arts)
 - 2006–07 ranged from 0.45 (grade 8 Mathematics) to 0.62 (grade 4 Mathematics)
 - 2005–06 ranged from 0.50 (grade 7 Mathematics) to 0.70 (grade 10 Reading/Language Arts)
 - Low values
 - 2008–09 ranged from 0.13 (grade 8 Mathematics) to 0.39 (grades 4, 7, and 11 Reading/Language Arts)
 - 2007–08 ranged from -0.18 (grade 4 Science) to 0.38 (grade 10 Reading/Language Arts)
 - 2006–07 ranged from 0.14 (grade 8 Mathematics) to 0.44 (grade 10 Reading/Language Arts)
 - 2005–06 ranged from 0.10 (grade 7 Mathematics) to 0.48 (grade 6 Reading/Language Arts)

- Impact data over time
 - *Novice*
 - 2008–09 ranged from 1% grades 3–6 Mathematics to 15% grade 11 Science
 - 2007–08 ranged from 0% grade 5 Mathematics and grade 7 Reading/Language Arts to 12% grade 11 Science
 - 2006–07 ranged from 1% grade 3 Mathematics and grade 7 Reading/Language Arts to 9% grade 4 Reading/Language Arts
 - 2005–06 ranged from 4% grades 3–6 Mathematics and grade 7 Reading/Language Arts to 10% grade 10 Mathematics and Reading/Language Arts
 - *Partial Mastery*
 - 2008–09 ranged from 15% grade 5 Mathematics to 30% grade 3 Reading/Language Arts
 - 2007–08 ranged from 13% grade 8 Reading/Language Arts to 30% grade 7 Mathematics
 - 2006–07 ranged from 17% grade 7 Reading/Language Arts to 29% grade 6 Reading/Language Arts
 - 2005–06 ranged from 23% grades 3 and 10 Reading/Language Arts to 31% grades 6 and 7 Mathematics
 - *Mastery*
 - 2008–09 ranged from 12% grade 5 Mathematics to 41% grade 11 Mathematics and grade 4 Reading/Language Arts
 - 2007–08 ranged from 12% grade 5 Mathematics to 47% grade 10 Mathematics
 - 2006–07 ranged from 12% grade 5 Mathematics to 50% grade 10 Mathematics
 - 2005–06 ranged from 22% grade 5 Mathematics to 47% grade 10 Mathematics
 - *Above Mastery*
 - 2008–09 ranged from 26% grades 6 and 11 Science to 72% grade 5 Mathematics
 - 2007–08 ranged from 20% grade 11 Science to 72% grade 5 Mathematics
 - 2006–07 ranged from 16% grade 4 Reading/Language Arts to 68% grade 5 Mathematics
 - 2005–06 ranged from 14% grade 10 Mathematics to 45% grade 5 Mathematics
 - *Mastery and Above Mastery combined*
 - 2008–09 ranged from 64% grade 6 Science to 84% grade 5 Mathematics
 - 2007–08 ranged from 59% grade 11 Science to 84% grade 5 Mathematics and grade 8 Reading/Language Arts
 - 2006–07 ranged from 65% grade 4 Reading/Language Arts to 82% grade 7 Reading/Language Arts
 - 2005–06 ranged from 61% grade 10 Mathematics to 68% grade 3 Reading/Language Arts

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Tables 1–56

Table 1
Test Design: Number of Items and Score Points per Standard per Grade and Content, Item Suppressions, and Final Maximum Score Possible for Mathematics

Content	Grade	Standard		Subskill Description	No. Items	Total No. Score Points	Maximum Possible Score	No. Suppressed Items	Final Max Possible Score
		Number	Description						
	3	1.1	Numbers and Operations	count and recognize whole numbers to nine	7	21		0	
		1.2	Numbers and Operations	solve single-digit addition problems with sums to nine	5	15		0	
		2.1	Algebra	recognize and complete a two-object pattern	4	12		0	
		3.1	Geometry	classify basic plane geometric shapes including square, circle, triangle and...	8	24	105	0	105
		4.1	Measurement	classify measuring devices according to what they measure (length, weight, te...	4	15		0	
		4.2	Measurement	identify coins as a penny, nickel, dime and quarter	3	9		0	
		5.1	Data Analysis and Probability	use interviews and observations to collect data	3	9		0	
MA	4	1.1	Numbers and Operations	count and recognize two-digit whole numbers to twenty and halves as two equal...	9	27		0	
		1.2	Numbers and Operations	solve addition problems with sums to 19, and model subtraction	3	9		0	
		2.1	Algebra	recognize and complete a three-object/item pattern	4	15		0	
		3.1	Geometry	classify and model basic geometric shapes including square, circle, triangle...	6	24	102	0	102
		4.1	Measurement	recognize length as long/short, weight as heavy/light, and temperature as hot...	1	3		0	
		4.2	Measurement	recognize time in relationship to a daily schedule	2	6		0	
		4.3	Measurement	identify values of coins and determine their relative values	2	6		0	
	5.1	Data Analysis and Probability	develop and interpret picture or object graphs	4	12		0		

Table 1
Test Design: Number of Items and Score Points per Standard per Grade and Content, Item Suppressions, and Final Maximum Score Possible for Mathematics (continued)

Content	Grade	Standard		Subskill Description	No. Items	Total No. Score Points	Maximum Possible Score	No. Suppressed Items	Final Max Possible Score	
		Number	Description							
MA	5	1.1	Numbers and Operations	recognize two-digit whole numbers to 40 and the fractional part $\frac{1}{2}$	6	18		0		
		1.2	Numbers and Operations	solve double-digit addition without regrouping and single-digit subtraction	5	15		0		
		2.1	Algebra	recognize and complete a four-object/step pattern	6	24		0		
		3.1	Geometry	classify three dimensional objects (cube, sphere, pyramid)	6	21	120	0	120	
		4.1	Measurement	measure length and weight using nonstandard forms of measurement (i.d. paperc...	3	9		0		
		4.2	Measurement	identify time to the hour	4	12		0		
			5.1	Data Analysis and Probability	develop bar graphs and interpret data	6	21		0	
		6	1.1	Numbers and Operations	recognize whole numbers to 60 and fractional parts $\frac{1}{4}$ and $\frac{1}{3}$	4	12		0	
			1.2	Numbers and Operations	solve two-digit numbers addition with and without regrouping and two-digit su...	5	15		0	
			2.1	Algebra	recognize and complete a pattern	8	24		0	
			3.1	Geometry	recognize and replicate right and obtuse angles	6	21	99	0	99
			4.1	Measurement	determine perimeter or area of an object	1	6		0	
			4.2	Measurement	use a ruler to measure length in inches	1	3		0	
	4.3		Measurement	tell time to the half hour	1	3		0		
		5.1	Data Analysis and Probability	collect, display and read data using appropriate graphs (pictorial, bar and l...	5	15		0		

Table 1
Test Design: Number of Items and Score Points per Standard per Grade and Content, Item Suppressions, and Final Maximum Score Possible for Mathematics (continued)

Content	Grade	Standard		Subskill Description	No. Items	Total No. Score Points	Maximum Possible Score	No. Suppressed Items	Final Max Possible Score
		Number	Description						
MA	7	1.1	Numbers and Operations	recognize whole numbers to 100 and the difference among $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$	4	12		0	
		1.2	Numbers and Operations	solve two-digit addition and subtract with and without regrouping and single-...	3	9		0	
		2.1	Algebra	recognize and complete counting patterns	4	12		0	
		2.2	Algebra	given two whole numbers identify which is greater than/less than	6	18		0	
		3.1	Geometry	recognize and replicate angles: right, acute, obtuse	5	18	96	0	96
		4.1	Measurement	determine the volume of an object using non-standard measurement	2	6		0	
		4.2	Measurement	measure length with a customary ruler and yardstick	1	3		0	
	4.3	Measurement	tell time to the nearest five-minute intervals	2	6		0		
	5.1	Data Analysis and Probability	organize given data by category, frequency, and range	4	12		0		
	8	1.1	Numbers and Operations	recognize numbers to 100 including fractional halves, fourths, tenths and the...	4	12		0	
		1.2	Numbers and Operations	apply various strategies and operations to solve practical problems involving...	2	6		0	
		2.1	Algebra	recognize and extend mathematical patterns	6	18		0	
		2.2	Algebra	given fractions one-half, one-third, one-fourth, and decimal .5, .25, .75 ide...	6	18	114	0	114
		3.1	Geometry	identify angles and lines in the environment	7	21		0	
4.1		Measurement	apply the concepts of area, perimeter and time to real-life situations	7	21		0		
5.1		Data Analysis and Probability	solve problems to determine possible combinations	6	18		0		

Table 1
Test Design: Number of Items and Score Points per Standard per Grade and Content, Item Suppressions, and Final Maximum Score Possible for Mathematics (continued)

Content	Grade	Standard		Subskill Description	No. Items	Total No. Score Points	Maximum Possible Score	No. Suppressed Items	Final Max Possible Score
		Number	Description						
MA	11	1.1	Numbers and Operations	solve problems with whole numbers, fractions and decimals	9	27	93	0	93
		2.1	Algebra	use algebraic symbols (<,>=) to compare two sets	2	6		0	
		2.2	Algebra	use a graph to represent relations in numbers	5	18		0	
		3.1	Geometry	use spatial relationships (geometric shapes, forms and figures, i.e., points,...	5	15		0	
		4.1	Measurement	solve practical problems involving length, weight and capacity	4	12		0	
		5.1	Data Analysis and Probability	collect, organize and utilize numerical information and data	5	15		0	

Table 2
Test Design: Number of Items and Score Points per Standard per Grade and Content, Item Suppressions, and Final Maximum Score Possible for Reading/Language Arts

Content	Grade	Standard		Subskill Description	No. Items	Total No. Score Points	Maximum Possible Score	No. Suppressed Items	Final Max Possible Score
		Number	Description						
RLA	3	1.1	Reading	categorize pictures that represent words or	9	27		0	
		1.2	Reading	recall an event from a story	4	12		0	
		2.1	Writing	copy labels for picture and objects	2	12		0	
		2.2	Writing	recognize that proper names begin with capital	5	15	84	0	84
		3.1	Listening/ Speaking/ Viewing	respond to questions about recent experiences	6	18		0	
	4	1.1	Reading	recognize descriptive vocabulary words	10	30		0	
		2.1	Writing	copy personal information	3	18		0	
		2.2	Writing	create a picture/word sentence with a period at	1	3	75	0	72
		3.1	Listening/ Speaking/ Viewing	listen to and respond to information	8	24		1	
	5	1.1	Reading	use the root word to identify a new word	6	18		0	
		1.2	Reading	identify main character from text or story	3	9		0	
		1.3	Reading	summarize a simple story	7	21		0	
		2.1	Writing	write a simple sentence using initial capitalization and ending punctuation	3	9	78	0	78
		2.2	Writing	apply information found in basic reference	4	12		0	
	6	3.1	Listening/ Speaking/ Viewing	engage in a conversation with a familiar person	3	9		0	
		1.1	Reading	identify vocabulary words from a variety of	6	18		0	
		1.2	Reading	answer questions related to the main idea of a	6	21		0	
		2.1	Writing	extend a sentence using descriptive words and correct capitalization and punc.	2	6		0	
2.2		Writing	select and use the correct resource material to	10	30	90	0	90	
	3.1	Listening/ Speaking/ Viewing	engage in communication with familiar and unfamiliar people	5	15		0		

Table 2
Test Design: Number of Items and Score Points per Standard per Grade and Content, Item Suppressions, and Final Maximum Score Possible for Reading/Language Arts (continued)

Content	Grade	Standard		Subskill Description	No. Items	Total No. Score Points	Maximum Possible Score	No. Suppressed Items	Final Max Possible Score
		Number	Description						
RLA	7	1.1	Reading	recognize and comprehend frequently used sight	9	27		0	
		1.2	Reading	identify three elements of a story	10	30		0	
		2.1	Writing	write two related sentences	6	21		0	
		2.2	Writing	compare two similar resource materials and determine which is most appropriate	5	15	117	0	117
		3.1	Listening/ Speaking/ Viewing	listen and communicate in order to obtain information or perform a task	7	24		0	
	8	1.1	Reading	use a variety of resources to identify meaning of	4	12		0	
		1.2	Reading	identify details from text needed to make	11	33		0	
		2.1	Writing	using a resource, compose a paragraph with	10	39	102	0	102
		3.1	Listening/ Speaking/ Viewing	listen to and communicate with a variety of speakers in order to answer question	4	18		0	
	11	1.1	Reading	determine word meaning through a variety of	9	27		0	
		1.2	Reading	comprehend and infer meaning from literary materials to make predictions and...	6	18		0	
		1.3	Reading	apply information from a variety of sources	1	3		0	
		2.1	Writing	produce writing for practical uses with correct punctuation and capitalization	6	21	84	0	84
		3.1	Listening/ Speaking/ Viewing	listen in order to communicate effectively in different ways and different pu...	4	15		0	

Table 3
Test Design: Number of Items and Score Points per Standard per Grade and Content, Item Suppressions, and Final Maximum Score Possible for Science

Content	Grade	Standard		Subskill Description	No. Items	Total No. Score Points	Maximum Possible Score	No. Suppressed Items	Final Max Possible Score
		Number	Description						
SC	4	1.1	Nature of Science	apply tools/methods in the investigation of scientific concepts	7	27		0	
		2.1	Content of Science	describe characteristics of matter	6	21	102	0	102
		2.2	Content of Science	recognize different types of forces of motion	6	18		0	
		2.3	Content of Science	compare the effects of different natural events	5	15		0	
		3.1	Application of Science	compare scientific systems/patterns	6	21		0	
	6	1.1	Nature of Science	apply scientific processes and skills	6	21		0	
		1.2	Nature of Science	identify careers in and contributions of science	5	18		0	
		2.1	Content of Science	describe the cycles in nature	6	21	114	0	114
		2.2	Content of Science	classify the properties and processes of	4	12		0	
		2.3	Content of Science	explain the relationships between the earth,	6	21		0	
	3.1	Application of Science	describe changes in systems	6	21		0		
	11	1.1	Nature of Science	historical scientific innovations	6	18		0	
		1.2	Nature of Science	safely use laboratory equipment	5	21		0	
		2.1	Content of Science	classify examples of matter	6	24		0	
		2.2	Content of Science	distinguish between chemical and physical	4	12	114	0	114
2.3		Content of Science	compare substances by mass, temperature or concentration	6	18		0		
3.1	Application of Science	impact of technology on the environment	6	21		0			

Table 4
Test Design: Number of Items by Maximum Item Score

Content	Grade	Total Number of Items	Number of Items with Maximum Score of:		Max Score
			3	6	
MA	3	34	33	1	105
	4	31	28	3	102
	5	36	32	4	120
	6	31	29	2	99
	7	31	30	1	96
	8	38	38	0	114
	11	30	29	1	93
RLA	3	26	24	2	84
	4	21	18	3	72
	5	26	26	0	78
	6	29	28	1	90
	7	37	35	2	117
	8	29	24	5	102
	11	26	24	2	84
SC	4	30	26	4	102
	6	33	28	5	114
	11	33	28	5	114

Table 5
Descriptive Statistics for Mathematics by Grade, Gender, and Ethnicity

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	3	Total	249	100	72.21	22.98	5	0	0.93	6.07
		Female	86	34.54	73.05	22.92	2	0	0.92	6.33
		Male	163	65.46	71.77	23.06	3	0	0.93	5.95
		African American	10	4.02	77.70	16.82	0	0	0.86	6.26
		Asian/Pacific Islander/American	1	0.40	–	–	–	–	–	–
		Indian/Alaskan Native	1	0.40	–	–	–	–	–	–
		Hispanic	2	0.80	–	–	–	–	–	–
		White (not Hispanic)	234	93.98	72.27	23.10	5	0	0.93	6.08
	Other	2	0.80	–	–	–	–	–	–	
	4	Total	281	100	76.09	23.18	17	0	0.93	5.95
		Female	89	31.67	75.18	23.54	4	0	0.93	6.12
		Male	192	68.33	76.51	23.07	13	0	0.94	5.87
		African American	23	8.19	69.91	22.69	1	0	0.91	6.70
		Asian/Pacific Islander/American	0	0	–	–	–	–	–	–
		Indian/Alaskan Native	0	0	–	–	–	–	–	–
		Hispanic	1	0.36	–	–	–	–	–	–
		White (not Hispanic)	254	90.39	76.44	23.22	15	0	0.94	5.89
	Other	3	1.07	–	–	–	–	–	–	
	5	Total	276	100	94.13	26.70	28	1	0.94	6.28
		Female	99	35.87	90.05	25.80	7	0	0.93	6.59
		Male	177	64.13	96.41	26.99	21	1	0.95	6.09
African American		14	5.07	88.14	30.02	2	0	0.94	7.30	
Asian/Pacific Islander/American		2	0.72	–	–	–	–	–	–	
Indian/Alaskan Native		2	0.72	–	–	–	–	–	–	
Hispanic		0	0	–	–	–	–	–	–	
White (not Hispanic)		256	92.75	94.82	26.45	26	1	0.95	6.19	
Other	4	1.45	–	–	–	–	–	–		

Table 5
Descriptive Statistics for Mathematics by Grade, Gender, and Ethnicity (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	6	Total	263	100	68.29	20.87	5	0	0.91	6.36
		Female	92	34.98	69.26	20.26	2	0	0.90	6.27
		Male	171	65.02	67.76	21.24	3	0	0.91	6.41
		African American	16	6.08	58.56	23.30	0	0	0.93	6.27
		Asian/Pacific Islander/American	3	1.14	–	–	–	–	–	–
		Indian/Alaskan Native	3	1.14	–	–	–	–	–	–
		Hispanic	3	1.14	–	–	–	–	–	–
		White (not Hispanic)	239	90.87	69.03	20.61	5	0	0.90	6.37
	Other	2	0.76	–	–	–	–	–	–	
	7	Total	261	100	65.70	18.55	4	0	0.91	5.66
		Female	97	37.16	64.89	18.97	1	0	0.92	5.23
		Male	164	62.84	66.18	18.34	3	0	0.89	6.02
		African American	16	6.13	63.44	20.38	0	0	0.94	5.20
		Asian/Pacific Islander/American	1	0.38	–	–	–	–	–	–
		Indian/Alaskan Native	1	0.38	–	–	–	–	–	–
		Hispanic	3	1.15	–	–	–	–	–	–
		White (not Hispanic)	239	91.57	65.91	18.50	4	0	0.91	5.68
	Other	2	0.77	–	–	–	–	–	–	
	8	Total	263	100	75.56	20.75	2	0	0.89	6.90
		Female	92	34.98	71.77	20.94	0	0	0.88	7.20
		Male	171	65.02	77.60	20.42	2	0	0.89	6.72
African American		14	5.32	68.07	20.01	0	0	0.86	7.36	
Asian/Pacific Islander/American		1	0.38	–	–	–	–	–	–	
Indian/Alaskan Native		1	0.38	–	–	–	–	–	–	
Hispanic		1	0.38	–	–	–	–	–	–	
White (not Hispanic)		246	93.54	76.14	20.71	2	0	0.89	6.88	
Other	1	0.38	–	–	–	–	–	–		

Table 5
Descriptive Statistics for Mathematics by Grade, Gender, and Ethnicity (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	11	Total	267	100	57.42	21.16	4	0	0.93	5.70
		Female	93	34.83	57.19	19.11	1	0	0.91	5.69
		Male	174	65.17	57.55	22.22	3	0	0.93	5.67
		African American	20	7.49	55.20	19.06	0	0	0.88	6.69
		Asian/Pacific Islander/American	2	0.75	–	–	–	–	–	–
		Indian/Alaskan Native	2	0.75	–	–	–	–	–	–
		Hispanic	3	1.12	–	–	–	–	–	–
		White (not Hispanic)	240	89.89	57.83	21.17	4	0	0.93	5.60
Other	2	0.75	–	–	–	–	–	–		

Table 6
Descriptive Statistics for Reading/Language Arts by Grade, Gender, and Ethnicity

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RLA	3	Total	248	100	62.56	19.11	15	0	0.93	5.21
		Female	86	34.68	62.94	19.24	7	0	0.92	5.48
		Male	162	65.32	62.35	19.09	8	0	0.93	5.08
		African American	10	4.03	67.30	15.94	1	0	0.89	5.27
		Asian/Pacific Islander/American	1	0.40	–	–	–	–	–	–
		Indian/Alaskan Native	1	0.40	–	–	–	–	–	–
		Hispanic	2	0.81	–	–	–	–	–	–
		White (not Hispanic)	233	93.95	62.77	19.03	14	0	0.93	5.20
	Other	2	0.81	–	–	–	–	–	–	
	4	Total	281	100	56.48	15.25	37	0	0.90	4.89
		Female	89	31.67	56.04	15.87	12	0	0.90	5.00
		Male	192	68.33	56.69	14.98	25	0	0.90	4.84
		African American	24	8.54	54.00	14.59	2	0	0.84	5.79
		Asian/Pacific Islander/American	0	0	–	–	–	–	–	–
		Indian/Alaskan Native	0	0	–	–	–	–	–	–
		Hispanic	1	0.36	–	–	–	–	–	–
		White (not Hispanic)	253	90.04	56.62	15.33	33	0	0.90	4.81
	Other	3	1.07	–	–	–	–	–	–	
	5	Total	276	100	56.58	17.20	14	1	0.91	5.08
		Female	100	36.23	53.61	17.74	6	0	0.91	5.25
		Male	176	63.77	58.27	16.69	8	1	0.91	4.99
African American		15	5.43	53.33	16.40	1	0	0.89	5.44	
Asian/ Pacific Islander/American		2	0.72	–	–	–	–	–	–	
Indian/Alaskan Native		2	0.72	–	–	–	–	–	–	
Hispanic		0	0	–	–	–	–	–	–	
White (not Hispanic)		255	92.39	56.94	17.22	13	1	0.91	5.05	
Other	4	1.45	–	–	–	–	–	–		

Table 6
Descriptive Statistics for Reading/Language Arts by Grade, Gender, and Ethnicity (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
		Total	263	100	69.10	20.38	31	1	0.93	5.30
		Female	92	34.98	71.22	19.75	15	0	0.93	5.17
		Male	171	65.02	67.96	20.68	16	1	0.93	5.37
		African American	16	6.08	62.50	25.28	0	0	0.96	5.10
	6	Asian/ Pacific Islander/American	3	1.14	–	–	–	–	–	–
		Indian/Alaskan Native	3	1.14	–	–	–	–	–	–
		Hispanic	3	1.14	–	–	–	–	–	–
		White (not Hispanic)	239	90.87	69.83	19.92	31	1	0.93	5.31
		Other	2	0.76	–	–	–	–	–	–
		Total	261	100	90.28	24.66	9	0	0.95	5.72
		Female	98	37.55	89.58	25.71	4	0	0.96	5.32
		Male	163	62.45	90.71	24.08	5	0	0.94	6.02
		African American	17	6.51	82.94	31.07	0	0	0.95	6.80
RLA	7	Asian/ Pacific Islander/American	1	0.38	–	–	–	–	–	–
		Indian/Alaskan Native	1	0.38	–	–	–	–	–	–
		Hispanic	3	1.15	–	–	–	–	–	–
		White (not Hispanic)	238	91.19	90.92	24.24	9	0	0.95	5.60
		Other	2	0.77	–	–	–	–	–	–
		Total	262	100	72.36	20.02	5	0	0.89	6.71
		Female	91	34.73	71.64	19.45	3	0	0.87	6.94
		Male	171	65.27	72.75	20.36	2	0	0.89	6.61
		African American	14	5.34	66.29	27.21	0	0	0.93	7.00
	8	Asian/ Pacific Islander/American	1	0.38	–	–	–	–	–	–
		Indian/Alaskan Native	1	0.38	–	–	–	–	–	–
		Hispanic	1	0.38	–	–	–	–	–	–
		White (not Hispanic)	245	93.51	72.80	19.49	5	0	0.88	6.69
		Other	1	0.38	–	–	–	–	–	–

Table 6
Descriptive Statistics for Reading/Language Arts by Grade, Gender, and Ethnicity (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
		Total	265	100	66.60	18.95	47	1	0.95	4.40
		Female	92	34.72	68.08	17.07	17	0	0.94	4.18
		Male	173	65.28	65.82	19.88	30	1	0.95	4.48
		African American	20	7.55	68.90	18.33	4	0	0.92	5.16
RLA	11	Asian/ Pacific Islander/American	2	0.75	–	–	–	–	–	–
		Indian/Alaskan Native	2	0.75	–	–	–	–	–	–
		Hispanic	3	1.13	–	–	–	–	–	–
		White (not Hispanic)	238	89.81	66.70	18.68	42	1	0.95	4.31
		Other	2	0.75	–	–	–	–	–	–

Table 7
Descriptive Statistics for Science by Grade, Gender, and Ethnicity

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
		Total	281	100	75.96	20.02	16	0	0.89	6.57
		Female	90	32.03	75.54	20.02	3	0	0.89	6.66
		Male	191	67.97	76.15	20.07	13	0	0.89	6.54
		African American	24	8.54	70.75	17.72	0	0	0.83	7.34
	4	Asian/Pacific Islander/American	0	0	–	–	–	–	–	–
		Indian/Alaskan Native	0	0	–	–	–	–	–	–
		Hispanic	1	0.36	–	–	–	–	–	–
		White (not Hispanic)	253	90.04	76.32	20.23	15	0	0.90	6.50
		Other	3	1.07	–	–	–	–	–	–
		Total	264	100	84.10	22.63	6	1	0.90	7.00
		Female	93	35.23	84.92	22.30	2	0	0.91	6.85
		Male	171	64.77	83.65	22.86	4	1	0.90	7.08
		African American	16	6.06	73.19	27.13	0	0	0.94	6.73
SC	6	Asian/Pacific Islander/American	3	1.14	–	–	–	–	–	–
		Indian/Alaskan Native	3	1.14	–	–	–	–	–	–
		Hispanic	3	1.14	–	–	–	–	–	–
		White (not Hispanic)	240	90.91	84.98	22.18	6	1	0.90	7.00
		Other	2	0.76	–	–	–	–	–	–
		Total	265	100	82.57	23.93	10	1	0.93	6.21
		Female	92	34.72	81.35	21.68	1	0	0.92	6.31
		Male	173	65.28	83.21	25.07	9	1	0.94	6.11
		African American	20	7.55	79.45	17.60	0	0	0.78	8.24
	11	Asian/ Pacific Islander/American	1	0.38	–	–	–	–	–	–
		Indian/Alaskan Native	1	0.38	–	–	–	–	–	–
		Hispanic	3	1.13	–	–	–	–	–	–
		White (not Hispanic)	239	90.19	83.13	24.18	10	1	0.94	6.06
		Other	2	0.75	–	–	–	–	–	–

Table 8
Descriptive Statistics for Mathematics by Degree of Mental Impairment

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	3	Mild Mental Impairment	93	37.35	84.98	14.81	2	0	0.84	5.97
		Moderate Mental Impairment	115	46.18	70.98	20.52	2	0	0.90	6.39
		Profound Mental Impairment	5	2.01	–	–	–	–	–	–
		Severe Mental Impairment	24	9.64	36.38	14.03	0	0	0.87	4.97
		More than One	1	0.40	–	–	–	–	–	–
		Missing	11	4.42	65.64	22.13	1	0	0.95	5.00
	4	Mild Mental Impairment	105	37.37	89.02	14.20	14	0	0.88	5.01
		Moderate Mental Impairment	140	49.82	72.22	21.59	3	0	0.92	6.27
		Profound Mental Impairment	5	1.78	–	–	–	–	–	–
		Severe Mental Impairment	14	4.98	40.93	20.36	0	0	0.90	6.31
		More than One	0	0	–	–	–	–	–	–
		Missing	17	6.05	69.82	26.37	0	0	0.94	6.21
	5	Mild Mental Impairment	107	38.77	110.32	11.44	21	0	0.82	4.91
		Moderate Mental Impairment	125	45.29	90.94	22.74	4	0	0.90	7.13
		Profound Mental Impairment	11	3.99	48.82	21.08	0	0	0.92	6.03
		Severe Mental Impairment	21	7.61	56.33	32.24	1	1	0.97	5.56
		More than One	0	0	–	–	–	–	–	–
		Missing	12	4.35	90.58	31.26	2	0	0.95	6.88
	6	Mild Mental Impairment	74	28.14	77.39	14.85	2	0	0.82	6.25
		Moderate Mental Impairment	139	52.85	69.57	18.73	1	0	0.88	6.58
		Profound Mental Impairment	7	2.66	–	–	–	–	–	–
		Severe Mental Impairment	23	8.75	34.17	8.88	0	0	0.74	4.52
		More than One	2	0.76	–	–	–	–	–	–
		Missing	18	6.84	76.11	17.71	2	0	0.89	5.93

Table 8
Descriptive Statistics for Mathematics by Degree of Mental Impairment (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	7	Mild Mental Impairment	110	42.15	71.55	13.79	1	0	0.80	6.23
		Moderate Mental Impairment	105	40.23	65.76	17.28	3	0	0.91	5.18
		Profound Mental Impairment	17	6.51	36.35	11.20	0	0	0.74	5.72
		Severe Mental Impairment	10	3.83	36.90	15.01	0	0	0.93	3.83
		More than One	0	0	–	–	–	–	–	–
		Missing	19	7.28	72.95	18.29	0	0	0.88	6.44
	8	Mild Mental Impairment	91	34.60	83.52	16.42	1	0	0.82	6.94
		Moderate Mental Impairment	126	47.91	76.27	18.19	1	0	0.84	7.18
		Profound Mental Impairment	10	3.80	43.00	9.21	0	0	0.54	6.22
		Severe Mental Impairment	15	5.70	43.53	11.67	0	0	0.85	4.49
		More than One	0	0	–	–	–	–	–	–
		Missing	21	7.98	75.19	25.17	0	0	0.92	7.27
	11	Mild Mental Impairment	63	23.60	69.22	16.59	1	0	0.90	5.13
		Moderate Mental Impairment	154	57.68	57.41	19.00	3	0	0.90	5.95
		Profound Mental Impairment	11	4.12	29.09	16.92	0	0	0.94	4.11
		Severe Mental Impairment	22	8.24	30.77	10.07	0	0	0.83	4.16
		More than One	0	0	–	–	–	–	–	–
		Missing	17	6.37	66.65	21.04	0	0	0.95	4.85

Table 9
Descriptive Statistics for Reading/Language Arts by Degree of Mental Impairment

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RLA	3	Mild Mental Impairment	93	37.50	72.76	10.11	9	0	0.77	4.90
		Moderate Mental Impairment	115	46.37	62.23	17.20	4	0	0.90	5.44
		Profound Mental Impairment	5	2.02	–	–	–	–	–	–
		Severe Mental Impairment	23	9.27	29.61	10.38	0	0	0.78	4.87
		More than One	1	0.40	–	–	–	–	–	–
		Missing	11	4.44	58.45	19.98	2	0	0.95	4.45
	4	Mild Mental Impairment	105	37.37	64.78	9.31	29	0	0.82	3.93
		Moderate Mental Impairment	139	49.47	54.54	13.62	6	0	0.86	5.04
		Profound Mental Impairment	5	1.78	–	–	–	–	–	–
		Severe Mental Impairment	14	4.98	35.79	16.40	0	0	0.88	5.59
		More than One	0	0	–	–	–	–	–	–
		Missing	18	6.41	46.61	19.33	2	0	0.91	5.69
	5	Mild Mental Impairment	107	38.77	66.91	10.83	13	0	0.83	4.43
		Moderate Mental Impairment	124	44.93	54.91	14.04	1	0	0.84	5.53
		Profound Mental Impairment	11	3.99	28.82	8.52	0	0	0.69	4.71
		Severe Mental Impairment	21	7.61	32.10	18.43	0	1	0.94	4.42
		More than One	0	0	–	–	–	–	–	–
		Missing	13	4.71	50.54	17.89	0	0	0.88	6.11
	6	Mild Mental Impairment	74	28.14	79.80	9.74	11	0	0.73	5.07
		Moderate Mental Impairment	139	52.85	71.24	16.87	17	0	0.89	5.47
		Profound Mental Impairment	7	2.66	–	–	–	–	–	–
		Severe Mental Impairment	23	8.75	30.22	11.16	0	1	0.83	4.54
		More than One	2	0.76	–	–	–	–	–	–
		Missing	18	6.84	69.39	19.71	3	0	0.92	5.56

Table 9
Descriptive Statistics for Reading/Language Arts by Degree of Mental Impairment (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RLA	7	Mild Mental Impairment	110	42.15	100.66	14.52	3	0	0.83	6.01
		Moderate Mental Impairment	105	40.23	90.47	21.26	3	0	0.94	5.05
		Profound Mental Impairment	16	6.13	44.63	17.25	0	0	0.85	6.73
		Severe Mental Impairment	11	4.21	42.73	22.33	0	0	0.94	5.64
		More than One	0	0	–	–	–	–	–	–
		Missing	19	7.28	95.16	21.26	3	0	0.92	6.17
	8	Mild Mental Impairment	90	34.35	81.37	14.34	3	0	0.79	6.57
		Moderate Mental Impairment	126	48.09	73.00	17.73	1	0	0.85	6.85
		Profound Mental Impairment	10	3.82	35.40	10.50	0	0	0.70	5.75
		Severe Mental Impairment	15	5.73	40.93	11.42	0	0	0.85	4.40
		More than One	0	0	–	–	–	–	–	–
		Missing	21	8.02	70.00	20.34	1	0	0.87	7.34
	11	Mild Mental Impairment	63	23.77	77.10	9.63	18	0	0.93	2.46
		Moderate Mental Impairment	153	57.74	68.52	14.90	23	0	0.91	4.56
		Profound Mental Impairment	10	3.77	31.20	20.92	0	1	0.96	3.96
		Severe Mental Impairment	22	8.30	34.50	13.90	0	0	0.89	4.62
		More than One	0	0	–	–	–	–	–	–
		Missing	17	6.42	72.82	15.69	6	0	0.96	3.08

Table 10
Descriptive Statistics for Science by Degree of Mental Impairment

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	4	Mild Mental Impairment	105	37.37	86.45	12.29	12	0	0.72	6.45
		Moderate Mental Impairment	140	49.82	73.71	18.38	4	0	0.88	6.47
		Profound Mental Impairment	5	1.78	–	–	–	–	–	–
		Severe Mental Impairment	14	4.98	43.86	18.33	0	0	0.88	6.23
		More than One	0	0	–	–	–	–	–	–
		Missing	17	6.05	67.29	22.56	0	0	0.90	7.12
	6	Mild Mental Impairment	75	28.41	95.61	14.58	2	0	0.79	6.65
		Moderate Mental Impairment	139	52.65	85.63	18.70	4	0	0.85	7.21
		Profound Mental Impairment	7	2.65	–	–	–	–	–	–
		Severe Mental Impairment	23	8.71	42.91	13.60	0	1	0.80	6.02
		More than One	2	0.76	–	–	–	–	–	–
		Missing	18	6.82	89.33	18.97	0	0	0.87	6.94
	11	Mild Mental Impairment	63	23.77	93.81	16.61	5	0	0.91	4.87
		Moderate Mental Impairment	154	58.11	85.25	19.21	5	0	0.89	6.29
		Profound Mental Impairment	11	4.15	41.09	21.90	0	1	0.94	5.45
		Severe Mental Impairment	22	8.30	43.55	13.28	0	0	0.84	5.25
		More than One	0	0	–	–	–	–	–	–
		Missing	15	5.66	95.47	19.01	0	0	0.96	4.02

Table 11
Descriptive Statistics for Mathematics by Disability

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	3	Autism	36	14.46	62.86	25.18	0	0	0.94	6.34
		Blind	0	0	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	2	0.80	–	–	–	–	–	–
		Other Health Impairment	29	11.65	81.17	17.60	2	0	0.87	6.30
		Partial Sighted	0	0	–	–	–	–	–	–
		Speech Impairment	55	22.09	78.55	15.19	1	0	0.81	6.60
		Traumatic Brain Injury	3	1.20	–	–	–	–	–	–
		More than One	65	26.10	62.23	23.91	0	0	0.94	6.05
	Missing	59	23.69	79.92	21.73	2	0	0.94	5.37	
	4	Autism	29	10.32	70.24	21.64	1	0	0.90	6.70
		Blind	0	0	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	2	0.71	–	–	–	–	–	–
		Other Health Impairment	31	11.03	75.61	26.63	2	0	0.96	5.25
		Partial Sighted	0	0	–	–	–	–	–	–
		Speech Impairment	73	25.98	77.88	21.21	3	0	0.92	6.17
		Traumatic Brain Injury	0	0	–	–	–	–	–	–
More than One		77	27.40	69.87	25.05	3	0	0.94	6.27	
Missing	69	24.56	83.09	20.02	7	0	0.93	5.37		

Table 11
Descriptive Statistics for Mathematics by Disability (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	5	Autism	25	9.06	82.16	29.54	1	0	0.94	7.27
		Blind	1	0.36	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	1	0.36	–	–	–	–	–	–
		Orthopedic	2	0.72	–	–	–	–	–	–
		Other Health Impairment	41	14.86	99.71	23.62	5	0	0.94	5.81
		Partial Sighted	0	0	–	–	–	–	–	–
		Speech Impairment	66	23.91	94.94	24.91	7	0	0.93	6.35
		Traumatic Brain Injury	2	0.72	–	–	–	–	–	–
	More than One	52	18.84	82.85	27.97	2	0	0.94	6.94	
	Missing	86	31.16	102.74	22.18	12	0	0.94	5.58	
	6	Autism	28	10.65	66.43	18.43	0	0	0.86	6.93
		Blind	0	0	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	3	1.14	–	–	–	–	–	–
		Other Health Impairment	38	14.45	68.37	20.27	0	0	0.90	6.33
		Partial Sighted	3	1.14	–	–	–	–	–	–
Speech Impairment		41	15.59	72.98	19.63	0	0	0.90	6.13	
Traumatic Brain Injury		3	1.14	–	–	–	–	–	–	
More than One	49	18.63	52.71	23.00	1	0	0.93	6.25		
Missing	98	37.26	74.76	16.60	4	0	0.86	6.25		

Table 11
Descriptive Statistics for Mathematics by Disability (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	7	Autism	23	8.81	56.30	21.00	0	0	0.92	5.86
		Blind	1	0.38	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	4	1.53	–	–	–	–	–	–
		Orthopedic	1	0.38	–	–	–	–	–	–
		Other Health Impairment	30	11.49	65.33	18.97	0	0	0.93	5.16
		Partial Sighted	2	0.77	–	–	–	–	–	–
		Speech Impairment	46	17.62	67.17	16.07	2	0	0.88	5.59
		Traumatic Brain Injury	5	1.92	–	–	–	–	–	–
		More than One	30	11.49	53.53	20.65	0	0	0.93	5.41
	Missing	119	45.59	70.37	16.05	2	0	0.87	5.73	
	8	Autism	23	8.75	69.48	18.05	0	0	0.89	5.91
		Blind	0	0	–	–	–	–	–	–
		Deaf	1	0.38	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	2	0.76	–	–	–	–	–	–
		Other Health Impairment	31	11.79	72.71	25.10	0	0	0.92	6.88
		Partial Sighted	0	0	–	–	–	–	–	–
		Speech Impairment	38	14.45	76.63	17.01	1	0	0.83	7.04
		Traumatic Brain Injury	9	3.42	–	–	–	–	–	–
More than One		30	11.41	61.23	26.21	0	0	0.94	6.40	
Missing	129	49.05	79.69	17.88	1	0	0.84	7.14		

Table 11
Descriptive Statistics for Mathematics by Disability (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	11	Autism	33	12.36	46.45	21.86	0	0	0.92	6.30
		Blind	3	1.12	–	–	–	–	–	–
		Deaf	1	0.37	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	1	0.37	–	–	–	–	–	–
		Other Health Impairment	34	12.73	56.71	16.51	0	0	0.94	4.21
		Partial Sighted	2	0.75	–	–	–	–	–	–
		Speech Impairment	24	8.99	51.04	22.52	0	0	0.94	5.73
		Traumatic Brain Injury	3	1.12	–	–	–	–	–	–
		More than One	29	10.86	38.79	18.29	0	0	0.92	5.30
Missing	137	51.31	65.72	17.87	4	0	0.90	5.77		

Table 12
Descriptive Statistics for Reading/Language Arts by Disability

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RLA	3	Autism	36	14.52	55.00	21.99	0	0	0.93	5.68
		Blind	0	0	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	2	0.81	–	–	–	–	–	–
		Other Health Impairment	29	11.69	69.31	13.05	4	0	0.83	5.45
		Partial Sighted	0	0	–	–	–	–	–	–
		Speech Impairment	55	22.18	70.16	11.70	4	0	0.80	5.25
		Traumatic Brain Injury	3	1.21	–	–	–	–	–	–
		More than One	64	25.81	55.20	21.50	4	0	0.94	5.25
	Missing	59	23.79	65.80	16.54	3	0	0.92	4.75	
	4	Autism	29	10.32	52.93	14.51	3	0	0.85	5.68
		Blind	0	0	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	2	0.71	–	–	–	–	–	–
		Other Health Impairment	30	10.68	59.23	15.73	5	0	0.95	3.47
		Partial Sighted	0	0	–	–	–	–	–	–
		Speech Impairment	73	25.98	57.33	13.80	9	0	0.86	5.11
		Traumatic Brain Injury	0	0	–	–	–	–	–	–
More than One		77	27.40	52.03	16.84	6	0	0.90	5.44	
Missing	70	24.91	60.36	13.75	12	0	0.89	4.56		

Table 12
Descriptive Statistics for Reading/Language Arts by Disability (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RLA	5	Autism	25	9.06	49.28	18.42	1	0	0.91	5.43
		Blind	1	0.36	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	1	0.36	–	–	–	–	–	–
		Orthopedic	2	0.72	–	–	–	–	–	–
		Other Health Impairment	41	14.86	60.78	15.85	2	0	0.91	4.79
		Partial Sighted	0	0	–	–	–	–	–	–
		Speech Impairment	66	23.91	56.58	16.26	3	0	0.90	5.23
		Traumatic Brain Injury	2	0.72	–	–	–	–	–	–
		More than One	52	18.84	48.79	16.13	0	0	0.88	5.55
	Missing	86	31.16	62.44	15.26	8	0	0.91	4.62	
	6	Autism	28	10.65	66.07	16.84	5	0	0.87	6.01
		Blind	0	0	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	3	1.14	–	–	–	–	–	–
		Other Health Impairment	38	14.45	71.24	20.39	4	0	0.94	4.98
		Partial Sighted	3	1.14	–	–	–	–	–	–
		Speech Impairment	41	15.59	71.27	18.76	5	0	0.92	5.30
Traumatic Brain Injury		3	1.14	–	–	–	–	–	–	
More than One	49	18.63	53.78	24.19	2	1	0.95	5.31		
Missing	98	37.26	76.22	14.02	14	0	0.86	5.18		

Table 12
Descriptive Statistics for Reading/Language Arts by Disability (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RLA	7	Autism	23	8.81	73.00	26.82	1	0	0.94	6.63
		Blind	1	0.38	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	4	1.53	–	–	–	–	–	–
		Orthopedic	1	0.38	–	–	–	–	–	–
		Other Health Impairment	30	11.49	90.47	26.03	1	0	0.97	4.83
		Partial Sighted	2	0.77	–	–	–	–	–	–
		Speech Impairment	46	17.62	90.85	19.73	1	0	0.92	5.59
		Traumatic Brain Injury	5	1.92	–	–	–	–	–	–
		More than One	30	11.49	68.77	31.38	0	0	0.96	6.54
	Missing	119	45.59	98.61	17.49	6	0	0.91	5.29	
	8	Autism	23	8.78	57.74	20.87	0	0	0.90	6.61
		Blind	0	0	–	–	–	–	–	–
		Deaf	1	0.38	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	2	0.76	–	–	–	–	–	–
		Other Health Impairment	31	11.83	68.77	23.43	1	0	0.91	6.89
		Partial Sighted	0	0	–	–	–	–	–	–
		Speech Impairment	38	14.50	71.74	17.54	0	0	0.85	6.70
		Traumatic Brain Injury	9	3.44	–	–	–	–	–	–
More than One		30	11.45	57.00	23.85	1	0	0.93	6.43	
Missing	128	48.85	79.26	14.15	2	0	0.78	6.67		

Table 12
Descriptive Statistics for Reading/Language Arts by Disability (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RLA	11	Autism	33	12.45	55.94	23.56	5	0	0.94	5.65
		Blind	3	1.13	–	–	–	–	–	–
		Deaf	1	0.38	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	1	0.38	–	–	–	–	–	–
		Other Health Impairment	34	12.83	67.09	15.07	6	0	0.96	2.97
		Partial Sighted	2	0.75	–	–	–	–	–	–
		Speech Impairment	24	9.06	64.96	17.47	5	0	0.93	4.77
		Traumatic Brain Injury	3	1.13	–	–	–	–	–	–
		More than One	28	10.57	44.36	21.59	0	1	0.95	4.92
Missing	136	51.32	74.45	11.70	30	0	0.91	3.54		

Table 13
Descriptive Statistics for Science by Disability

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	4	Autism	28	9.96	68.46	17.78	0	0	0.81	7.65
		Blind	0	0	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	2	0.71	–	–	–	–	–	–
		Other Health Impairment	31	11.03	74.03	22.67	2	0	0.93	5.86
		Partial Sighted	0	0	–	–	–	–	–	–
		Speech Impairment	73	25.98	77.89	17.02	5	0	0.84	6.70
		Traumatic Brain Injury	0	0	–	–	–	–	–	–
		More than One	77	27.40	72.84	23.17	5	0	0.92	6.48
	Missing	70	24.91	80.61	17.65	3	0	0.86	6.69	
	6	Autism	28	10.61	81.82	18.12	1	0	0.81	7.98
		Blind	0	0	–	–	–	–	–	–
		Deaf	0	0	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	3	1.14	–	–	–	–	–	–
		Other Health Impairment	38	14.39	84.18	23.06	0	0	0.91	7.01
		Partial Sighted	3	1.14	–	–	–	–	–	–
		Speech Impairment	41	15.53	87.12	21.55	2	0	0.89	7.02
		Traumatic Brain Injury	3	1.14	–	–	–	–	–	–
More than One		49	18.56	66.92	26.93	1	1	0.93	6.87	
Missing	99	37.50	92.04	16.06	1	0	0.83	6.70		

Table 13
Descriptive Statistics for Science by Disability (continued)

Content	Grade	Subgroup	Sample Size	%	Raw Score		Number Students at Max Score	Number Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	11	Autism	33	12.45	71.85	25.91	0	0	0.91	7.73
		Blind	3	1.13	–	–	–	–	–	–
		Deaf	1	0.38	–	–	–	–	–	–
		Deaf & Blind	0	0	–	–	–	–	–	–
		Hearing Impaired	0	0	–	–	–	–	–	–
		Orthopedic	1	0.38	–	–	–	–	–	–
		Other Health Impairment	34	12.83	83.15	20.34	0	0	0.96	4.29
		Partial Sighted	2	0.75	–	–	–	–	–	–
		Speech Impairment	24	9.06	77.75	21.43	1	0	0.91	6.27
		Traumatic Brain Injury	3	1.13	–	–	–	–	–	–
		More than One	29	10.94	55.34	26.37	0	1	0.94	6.51
		Missing	135	50.94	92.10	17.55	9	0	0.90	5.68

Table 14
Descriptive Statistics for Mathematics by Accommodation

Content	Grade	Additional Accommodation	Sample Size	%	Raw Score		N Maximum	N Minimum	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	3	Assistive Technology	6	2.41	–	–	–	–	–	–
		Braille	1	0.40	–	–	–	–	–	–
		Signing	3	1.20	–	–	–	–	–	–
		None	239	95.98	72.89	22.85	5	0	0.93	6.01
	4	Assistive Technology	5	1.78	–	–	–	–	–	–
		Braille	1	0.36	–	–	–	–	–	–
		Signing	0	0	–	–	–	–	–	–
		None	275	97.86	76.63	22.81	17	0	0.93	5.91
	5	Assistive Technology	8	2.90	–	–	–	–	–	–
		Braille	2	0.72	–	–	–	–	–	–
		Signing	3	1.09	–	–	–	–	–	–
		None	263	95.29	95.87	25.23	28	0	0.94	6.21
	6	Assistive Technology	4	1.52	–	–	–	–	–	–
		Braille	0	0	–	–	–	–	–	–
		Signing	1	0.38	–	–	–	–	–	–
		None	258	98.10	68.37	21.01	5	0	0.91	6.34
	7	Assistive Technology	10	3.83	64.10	17.18	0	0	0.85	6.55
		Braille	1	0.38	–	–	–	–	–	–
		Signing	5	1.92	–	–	–	–	–	–
		None	245	93.87	66.30	18.33	4	0	0.91	5.58
	8	Assistive Technology	8	3.04	–	–	–	–	–	–
		Braille	0	0	–	–	–	–	–	–
		Signing	6	2.28	–	–	–	–	–	–
		None	249	94.68	76.08	20.65	2	0	0.89	6.87
	11	Assistive Technology	10	3.75	54.00	27.35	0	0	0.96	5.74
		Braille	3	1.12	–	–	–	–	–	–
		Signing	3	1.12	–	–	–	–	–	–
		None	251	94.01	57.84	20.91	4	0	0.93	5.64

Table 15
Descriptive Statistics for Reading/Language Arts by Accommodation

Content	Grade	Additional Accommodation	Sample Size	%	Raw Score		N Maximum	N Minimum	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RLA	3	Assistive Technology	6	2.42	–	–	–	–	–	–
		Braille	1	0.40	–	–	–	–	–	–
		Signing	3	1.21	–	–	–	–	–	–
		None	238	95.97	62.92	18.99	15	0	0.93	5.17
	4	Assistive Technology	5	1.78	–	–	–	–	–	–
		Braille	1	0.36	–	–	–	–	–	–
		Signing	0	0	–	–	–	–	–	–
		None	275	97.86	56.73	15.08	37	0	0.90	4.85
	5	Assistive Technology	8	2.90	–	–	–	–	–	–
		Braille	2	0.72	–	–	–	–	–	–
		Signing	3	1.09	–	–	–	–	–	–
		None	263	95.29	57.46	16.58	14	0	0.91	5.07
	6	Assistive Technology	4	1.52	–	–	–	–	–	–
		Braille	0	0	–	–	–	–	–	–
		Signing	1	0.38	–	–	–	–	–	–
		None	258	98.10	69.20	20.52	31	1	0.93	5.28
	7	Assistive Technology	10	3.83	84.60	26.30	0	0	0.94	6.35
		Braille	1	0.38	–	–	–	–	–	–
		Signing	5	1.92	–	–	–	–	–	–
		None	245	93.87	91.37	23.92	9	0	0.95	5.60
	8	Assistive Technology	8	3.05	–	–	–	–	–	–
		Braille	0	0	–	–	–	–	–	–
		Signing	6	2.29	–	–	–	–	–	–
		None	248	94.66	73.01	19.84	5	0	0.89	6.64
	11	Assistive Technology	10	3.77	58.80	24.10	1	0	0.95	5.17
		Braille	3	1.13	–	–	–	–	–	–
		Signing	3	1.13	–	–	–	–	–	–
		None	249	93.96	67.25	18.65	46	1	0.95	4.26

Table 16
Descriptive Statistics for Science by Accommodation

Content	Grade	Additional Accommodation	Sample Size	%	Raw Score		N Maximum	N Minimum	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	4	Assistive Technology	5	1.78	–	–	–	–	–	–
		Braille	1	0.36	–	–	–	–	–	–
		Signing	0	0	–	–	–	–	–	–
		None	275	97.86	76.41	19.58	16	0	0.89	6.56
	6	Assistive Technology	4	1.52	–	–	–	–	–	–
		Braille	0	0	–	–	–	–	–	–
		Signing	1	0.38	–	–	–	–	–	–
		None	259	98.11	84.17	22.76	6	1	0.91	6.98
	11	Assistive Technology	10	3.77	72.50	32.11	0	0	0.95	6.84
		Braille	3	1.13	–	–	–	–	–	–
		Signing	3	1.13	–	–	–	–	–	–
		None	249	93.96	83.43	23.46	10	1	0.93	6.07

Table 17
Scoring Rubric for Multiple-Choice Item Types

Total Score	Content Score	Level of Assistance
3	Correct	INDEPENDENT—Performs task without assistance
2	Correct	PARTIAL—Partial physical, verbal, or gestural prompt
1	Correct	FULL—Full physical prompt
0	Incorrect or No Response	Further coded:
		I—Independent and incorrect
		P—Partial and incorrect
		F—Full and incorrect

Table 18
Scoring Rubric for Constructed-Response Item Types

Total Score	Content Score	Level of Assistance
6	Correct	INDEPENDENT—Performs task without assistance
5	Partially Correct / Some Error	INDEPENDENT—Performs task without assistance
4	Correct	PARTIAL—Partial physical, verbal, or gestural prompt
3	Partially Correct / Some Error	PARTIAL—Partial physical, verbal, or gestural prompt
2	Correct	FULL—Full physical prompt
1	Partially Correct / Some Error	FULL—Full physical prompt
0	Incorrect or No Response	Further coded: I—Independent and incorrect P—Partial and incorrect F—Full and incorrect

Table 19
Summary of Invalid Test Scores

Content	Grade	N Invalid	Total % Invalid	Source of Invalid		Total % Valid
				15%	Bubble	
MA	3	2	0.80	0.80	0	99.20
	4	2	0.71	0.71	0	99.29
	5	3	1.08	1.08	0	98.92
	6	1	0.38	0.38	0	99.62
	7	6	2.24	1.87	2.24	97.76
	8	2	0.75	0.75	0.38	99.25
	11	8	2.91	2.18	2.91	97.09
RLA	3	3	1.20	0.80	0.40	98.80
	4	2	0.71	0.35	0.35	99.29
	5	3	1.08	1.08	0	98.92
	6	1	0.38	0.38	0	99.62
	7	6	2.24	1.49	2.24	97.76
	8	3	1.13	1.13	0.38	98.87
	11	10	3.64	2.55	3.27	96.36
SC	4	2	0.71	0.71	0	99.29
	6	0	0	0	0	100
	11	10	3.64	2.91	2.91	96.36

Table 20
Inter-rater Reliabilities for Mathematics

Content	Grade	Number	Item			Second Read Rater Reliability				
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa	
			1	3	249	2.69	100%	0%	0%	1
			2	3	249	2.05	99.60%	0%	0.40%	0.9969
			3	3	248	1.98	99.19%	0.40%	0.40%	0.9958
			4	3	247	2.13	100%	0%	0%	1
			5	3	249	2.37	100%	0%	0%	1
			6	3	244	2.25	99.59%	0%	0.41%	0.9910
			7	3	249	2.00	99.60%	0%	0.40%	0.9926
			8	3	247	0.95	99.60%	0%	0.40%	0.9967
			9	3	249	2.51	100%	0%	0%	1
			10	3	249	2.44	99.60%	0.40%	0%	0.9989
			11	3	249	2.26	100%	0%	0%	1
			12	3	249	2.49	99.20%	0.40%	0.40%	0.9873
			13	3	249	1.97	100%	0%	0%	1
			14	3	249	1.71	98.39%	0.80%	0.80%	0.9882
			15	3	249	2.18	99.20%	0.40%	0.40%	0.9904
			16	3	249	2.59	100%	0%	0%	1
MA	3		17	3	246	2.52	100%	0%	0%	1
			18	3	249	2.38	100%	0%	0%	1
			19	3	249	1.33	99.60%	0%	0.40%	0.9936
			20	3	249	2.39	100%	0%	0%	1
			21	3	249	2.65	99.60%	0%	0.40%	0.9858
			22	3	249	1.13	99.60%	0%	0.40%	0.9969
			23	3	249	1.99	99.60%	0%	0.40%	0.9926
			24	3	249	2.19	99.60%	0%	0.40%	0.9921
			25	3	248	2.15	99.60%	0%	0.40%	0.9920
			26	3	249	2.17	100%	0%	0%	1
			27	3	249	2.38	100%	0%	0%	1
			28	3	248	2.35	99.60%	0%	0.40%	0.9901
			29	3	249	1.43	100%	0%	0%	1
			30	3	248	2.29	100%	0%	0%	1
			31	3	248	1.46	99.60%	0%	0.40%	0.9932
			32	3	249	2.59	99.60%	0%	0.40%	0.9881
			33	3	249	2.04	100%	0%	0%	1
			34	6	244	2.41	93.03%	3.69%	3.28%	0.9629

Table 20
Inter-rater Reliabilities for Mathematics (continued)

Content	Grade	Number	Item			Second Read Rater Reliability				
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa	
			1	3	281	2.70	100%	0%	0%	1
			2	3	281	2.62	100%	0%	0%	1
			3	6	280	4.86	98.21%	1.43%	0.36%	0.9979
			4	3	281	2.10	100%	0%	0%	1
			5	3	281	2.56	99.29%	0%	0.71%	0.9778
			6	3	281	2.49	99.29%	0.36%	0.36%	0.9881
			7	3	281	2.40	100%	0%	0%	1
			8	3	281	1.91	99.64%	0%	0.36%	0.9933
			9	3	281	2.24	99.64%	0%	0.36%	0.9925
			10	3	281	2.26	99.64%	0%	0.36%	0.9923
			11	3	281	2.37	100%	0%	0%	1
			12	3	281	2.13	100%	0%	0%	1
			13	3	280	2.00	100%	0%	0%	1
			14	3	281	2.53	99.64%	0.36%	0%	0.9989
			15	3	281	2.54	100%	0%	0%	1
MA	4		16	3	281	2.43	100%	0%	0%	1
			17	3	280	2.67	100%	0%	0%	1
			18	3	280	2.39	99.64%	0%	0.36%	0.9907
			19	3	281	2.02	99.64%	0%	0.36%	0.9934
			20	3	280	1.47	99.64%	0%	0.36%	0.9938
			21	3	280	2.43	99.64%	0%	0.36%	0.9912
			22	6	281	4.31	97.15%	1.07%	1.78%	0.9791
			23	3	280	2.16	99.29%	0%	0.71%	0.9864
			24	3	281	2.13	99.64%	0%	0.36%	0.9933
			25	3	281	2.73	99.64%	0%	0.36%	0.9934
			26	3	281	2.56	99.64%	0.36%	0%	0.9987
			27	3	280	1.10	98.93%	0%	1.07%	0.9818
			28	3	280	1.46	99.29%	0.36%	0.36%	0.9965
			29	6	281	4.52	97.86%	1.42%	0.71%	0.9952
			30	3	279	2.07	100%	0%	0%	1
			31	3	281	1.99	99.64%	0.36%	0%	0.9993

Table 20
Inter-rater Reliabilities for Mathematics (continued)

Content	Grade	Number	Item			Second Read Rater Reliability			
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa
		1	6	274	4.12	92.34%	5.84%	1.82%	0.9761
		2	3	275	2.48	98.91%	0.36%	0.73%	0.9784
		3	3	276	1.98	99.64%	0%	0.36%	0.9932
		4	3	275	2.63	99.27%	0%	0.73%	0.9760
		5	3	274	2.43	98.91%	0.36%	0.73%	0.9795
		6	3	275	1.97	98.55%	0%	1.45%	0.9747
		7	3	275	2.30	98.91%	0%	1.09%	0.9766
		8	3	274	2.22	99.27%	0.36%	0.36%	0.9915
		9	3	275	2.76	98.55%	0.36%	1.09%	0.9444
		10	6	276	5.17	99.28%	0.36%	0.36%	0.9896
		11	6	275	4.31	92.36%	3.27%	4.36%	0.9394
		12	3	276	2.66	100%	0%	0%	1
		13	3	276	2.50	99.28%	0%	0.72%	0.9798
		14	3	276	2.14	98.55%	0.72%	0.72%	0.9832
		15	3	276	2.35	98.91%	0%	1.09%	0.9788
		16	3	276	2.62	100%	0%	0%	1
		17	3	276	2.58	98.91%	0.36%	0.72%	0.9740
MA	5	18	3	274	2.56	98.18%	0.36%	1.46%	0.9511
		19	6	270	4.81	95.56%	1.11%	3.33%	0.9520
		20	3	276	2.64	98.55%	0%	1.45%	0.9478
		21	3	276	2.11	98.55%	0.36%	1.09%	0.9775
		22	3	276	1.96	97.83%	0.36%	1.81%	0.9662
		23	3	275	2.70	100%	0%	0%	1
		24	3	276	2.48	99.28%	0%	0.72%	0.9793
		25	3	275	2.57	99.27%	0%	0.73%	0.9757
		26	3	273	2.51	98.53%	0%	1.47%	0.9559
		27	3	275	2.00	98.91%	0%	1.09%	0.9790
		28	3	275	2.23	98.55%	0.36%	1.09%	0.9790
		29	3	275	2.24	99.27%	0.73%	0%	0.9981
		30	3	276	2.48	98.55%	0%	1.45%	0.9607
		31	3	275	2.37	98.55%	0%	1.45%	0.9647
		32	3	275	2.28	99.27%	0%	0.73%	0.9850
		33	3	274	2.50	97.81%	0%	2.19%	0.9400
		34	3	275	1.98	98.18%	0.36%	1.45%	0.9725
		35	3	276	2.42	97.83%	0.72%	1.45%	0.9552
		36	3	276	2.13	98.91%	0.36%	0.72%	0.9880

Table 20
Inter-rater Reliabilities for Mathematics (continued)

Content	Grade	Number	Item			Second Read Rater Reliability				
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa	
			1	3	263	2.62	100%	0%	0%	1
			2	3	263	2.99	100%	0%	0%	1
			3	3	263	1.53	99.62%	0.38%	0%	0.9993
			4	3	263	1.59	99.24%	0%	0.76%	0.9903
			5	3	263	0.89	99.62%	0%	0.38%	0.9932
			6	3	263	2.62	100%	0%	0%	1
			7	3	263	1.73	99.62%	0%	0.38%	0.9935
			8	3	262	2.51	99.62%	0%	0.38%	0.9953
			9	3	262	2.43	99.62%	0%	0.38%	0.9956
			10	3	262	2.38	99.24%	0%	0.76%	0.9868
			11	3	263	2.22	99.62%	0%	0.38%	0.9923
			12	3	263	2.28	99.62%	0.38%	0%	0.9991
			13	3	263	2.26	99.62%	0%	0.38%	0.9923
			14	3	263	2.29	99.62%	0%	0.38%	0.9920
			15	3	263	2.09	99.62%	0.38%	0%	0.9992
MA	6		16	3	263	2.43	100%	0%	0%	1
			17	3	263	2.20	100%	0%	0%	1
			18	3	263	2.07	100%	0%	0%	1
			19	3	263	1.37	98.86%	0%	1.14%	0.9848
			20	3	263	1.90	99.62%	0%	0.38%	0.9939
			21	3	263	1.56	100%	0%	0%	1
			22	3	263	1.46	99.24%	0.38%	0.38%	0.9932
			23	3	263	1.51	99.24%	0%	0.76%	0.9879
			24	3	263	2.33	99.62%	0%	0.38%	0.9915
			25	3	262	2.28	100%	0%	0%	1
			26	3	262	2.24	100%	0%	0%	1
			27	3	262	2.33	100%	0%	0%	1
			28	6	263	4.43	94.68%	3.42%	1.90%	0.9753
			29	3	263	2.30	99.62%	0.38%	0%	0.9990
			30	3	262	1.68	99.24%	0.38%	0.38%	0.9962
			31	6	263	3.85	87.83%	6.46%	5.70%	0.9242

Table 20
Inter-rater Reliabilities for Mathematics (continued)

Content	Grade	Number	Item			Second Read Rater Reliability				
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa	
			1	3	260	2.73	100%	0%	0%	1
			2	3	262	2.27	100%	0%	0%	1
			3	3	262	2.19	99.62%	0%	0.38%	0.9962
			4	3	262	2.69	100%	0%	0%	1
			5	3	262	2.27	99.62%	0.38%	0%	0.9990
			6	3	262	2.47	99.62%	0.38%	0%	0.9987
			7	6	262	1.85	96.18%	0%	3.82%	0.9401
			8	3	262	2.76	99.62%	0.38%	0%	0.9978
			9	3	262	1.97	99.24%	0%	0.76%	0.9861
			10	3	262	1.60	100%	0%	0%	1
			11	3	262	2.75	99.62%	0%	0.38%	0.9804
			12	3	262	2.02	98.85%	0%	1.15%	0.9827
			13	3	262	1.90	99.62%	0%	0.38%	0.9930
			14	3	262	2.24	99.62%	0%	0.38%	0.9912
MA	7		15	3	262	2.62	100%	0%	0%	1
			16	3	262	2.61	100%	0%	0%	1
			17	3	262	2.35	100%	0%	0%	1
			18	3	262	2.38	100%	0%	0%	1
			19	3	262	1.66	100%	0%	0%	1
			20	3	262	1.94	99.24%	0.76%	0%	0.9984
			21	3	262	2.06	99.62%	0.38%	0%	0.9992
			22	3	261	1.60	100%	0%	0%	1
			23	3	261	1.83	99.23%	0%	0.77%	0.9897
			24	3	261	1.94	100%	0%	0%	1
			25	3	262	1.97	100%	0%	0%	1
			26	3	262	2.70	99.24%	0%	0.76%	0.9758
			27	3	261	2.67	99.62%	0%	0.38%	0.9855
			28	3	262	1.06	98.85%	0%	1.15%	0.9787
			29	3	262	0.78	99.24%	0%	0.76%	0.9836
			30	3	261	1.36	99.62%	0%	0.38%	0.9939
			31	3	261	2.61	99.62%	0%	0.38%	0.9872

Table 20
Inter-rater Reliabilities for Mathematics (continued)

Content	Grade	Number	Item			Second Read Rater Reliability				
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa	
			1	3	263	2.25	99.62%	0%	0.38%	0.9914
			2	3	263	2.76	100%	0%	0%	1
			3	3	263	2.67	99.24%	0%	0.76%	0.9707
			4	3	263	1.94	98.86%	0%	1.14%	0.9815
			5	3	263	2.03	99.62%	0%	0.38%	0.9930
			6	3	263	2.38	100%	0%	0%	1
			7	3	262	1.65	99.62%	0%	0.38%	0.9937
			8	3	262	0.93	99.62%	0.38%	0%	0.9992
			9	3	263	2.48	99.24%	0.76%	0%	0.9974
			10	3	263	2.14	99.24%	0.76%	0%	0.9982
			11	3	262	1.55	98.85%	0%	1.15%	0.9810
			12	3	263	1.92	98.86%	0.38%	0.76%	0.9849
			13	3	263	2.06	99.62%	0%	0.38%	0.9966
			14	3	263	2.02	98.86%	0%	1.14%	0.9779
			15	3	263	2.08	99.24%	0%	0.76%	0.9886
			16	3	263	1.86	99.62%	0%	0.38%	0.9935
			17	3	263	1.62	99.24%	0%	0.76%	0.9904
			18	3	263	1.59	99.24%	0%	0.76%	0.9905
MA	8		19	3	262	1.60	99.24%	0%	0.76%	0.9903
			20	3	262	1.56	99.24%	0%	0.76%	0.9904
			21	3	263	1.13	99.24%	0%	0.76%	0.9902
			22	3	263	1.83	99.24%	0.38%	0.38%	0.9960
			23	3	263	1.76	98.86%	0.76%	0.38%	0.9912
			24	3	263	1.65	98.10%	0.76%	1.14%	0.9805
			25	3	263	2.60	98.86%	0%	1.14%	0.9648
			26	3	262	2.60	98.85%	0%	1.15%	0.9591
			27	3	263	2.56	98.86%	0%	1.14%	0.9666
			28	3	263	2.70	100%	0%	0%	1
			29	3	262	1.16	99.24%	0.38%	0.38%	0.9929
			30	3	262	1.74	98.85%	0.38%	0.76%	0.9854
			31	3	261	2.63	99.23%	0%	0.77%	0.9732
			32	3	263	2.09	99.62%	0%	0.38%	0.9929
			33	3	261	2.38	97.70%	0.77%	1.53%	0.9614
			34	3	262	1.38	99.24%	0.38%	0.38%	0.9927
			35	3	260	2.70	99.62%	0%	0.38%	0.9924
			36	3	260	2.12	99.62%	0%	0.38%	0.9919
			37	3	262	1.11	100%	0%	0%	1
			38	3	262	2.56	97.71%	1.15%	1.15%	0.9690

Table 20
Inter-rater Reliabilities for Mathematics (continued)

Content	Grade	Number	Item			Second Read Rater Reliability			
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa
		1	3	267	2.64	99.63%	0%	0.37%	0.9942
		2	3	267	1.33	99.63%	0%	0.37%	0.9938
		3	3	267	2.20	98.50%	0.37%	1.12%	0.9776
		4	3	267	1.83	99.25%	0.37%	0.37%	0.9929
		5	3	267	2.59	96.63%	0.37%	3.00%	0.9095
		6	3	267	2.53	100%	0%	0%	1
		7	3	266	1.27	99.62%	0%	0.38%	0.9972
		8	3	266	2.01	98.87%	0%	1.13%	0.9831
		9	3	266	0.94	98.87%	0%	1.13%	0.9794
		10	3	267	1.96	98.88%	0%	1.12%	0.9822
		11	3	267	2.17	98.50%	0.37%	1.12%	0.9750
		12	3	267	2.50	100%	0%	0%	1
		13	3	267	1.94	99.25%	0%	0.75%	0.9867
		14	3	267	2.25	99.63%	0%	0.37%	0.9918
MA	11	15	3	267	2.36	99.63%	0%	0.37%	0.9915
		16	3	266	2.71	99.62%	0%	0.38%	0.9832
		17	3	267	2.59	100%	0%	0%	1
		18	3	267	1.31	99.63%	0%	0.37%	0.9940
		19	3	266	1.29	99.25%	0%	0.75%	0.9878
		20	3	266	1.32	99.62%	0%	0.38%	0.9939
		21	3	267	1.33	100%	0%	0%	1
		22	3	267	1.86	99.63%	0%	0.37%	0.9969
		23	3	267	1.24	99.25%	0%	0.75%	0.9910
		24	3	266	2.03	99.25%	0.38%	0.38%	0.9921
		25	3	267	1.55	99.63%	0%	0.37%	0.9943
		26	3	267	1.43	100%	0%	0%	1
		27	3	267	2.19	98.88%	0%	1.12%	0.9814
		28	6	267	2.58	92.13%	3.00%	4.87%	0.9450
		29	3	267	1.27	99.63%	0%	0.37%	0.9937
		30	3	265	2.43	99.62%	0%	0.38%	0.9902

Table 21
Inter-rater Reliabilities for Reading/Language Arts

Content	Grade	Number	Item			Second Read Rater Reliability			
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa
RLA	3	1	3	248	2.79	99.60%	0.40%	0%	0.9973
		2	3	247	2.42	99.19%	0%	0.81%	0.9897
		3	3	247	2.35	99.60%	0%	0.40%	0.9905
		4	3	248	2.15	100%	0%	0%	1
		5	3	248	2.06	100%	0%	0%	1
		6	3	248	2.19	100%	0%	0%	1
		7	3	248	2.19	100%	0%	0%	1
		8	3	248	2.13	100%	0%	0%	1
		9	3	248	2.36	100%	0%	0%	1
		10	3	248	2.73	99.60%	0%	0.40%	0.9924
		11	3	248	2.21	98.79%	0.40%	0.81%	0.9857
		12	6	247	4.83	93.93%	4.86%	1.21%	0.9826
		13	3	248	2.17	100%	0%	0%	1
		14	3	247	2.17	99.60%	0%	0.40%	0.9917
		15	3	248	2.20	100%	0%	0%	1
		16	3	247	2.20	99.60%	0.40%	0%	0.9991
		17	3	248	2.27	100%	0%	0%	1
		18	3	247	2.45	100%	0%	0%	1
		19	3	248	1.87	99.19%	0%	0.81%	0.9894
		20	3	248	2.59	100%	0%	0%	1
		21	6	245	4.33	95.92%	3.67%	0.41%	0.9930
		22	3	247	1.57	100%	0%	0%	1
		23	3	247	2.75	98.79%	0.40%	0.81%	0.9636
		24	3	247	1.77	99.60%	0.40%	0%	0.9992
		25	3	247	1.59	99.19%	0.40%	0.40%	0.9927
		26	3	242	2.45	99.17%	0%	0.83%	0.9888

Table 21
Inter-rater Reliabilities for Reading/Language Arts (continued)

		Item			Second Read Rater Reliability				
Content	Grade	Number	Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa
		1	3	281	2.67	99.64%	0%	0.36%	0.9856
		2	3	281	2.82	100%	0%	0%	1
		3	3	281	2.62	100%	0%	0%	1
		4	3	281	2.32	100%	0%	0%	1
		5	3	281	2.24	98.93%	0.36%	0.71%	0.9823
		6	3	281	2.43	100%	0%	0%	1
		7	3	281	2.70	100%	0%	0%	1
		8	3	281	1.93	100%	0%	0%	1
		9	3	281	1.63	98.93%	0.36%	0.71%	0.9878
		10	3	281	1.88	99.29%	0%	0.71%	0.9910
RLA	4	11	3	281	2.73	100%	0%	0%	1
		12	6	281	4.68	98.58%	0.71%	0.71%	0.9892
		14	3	281	2.78	100%	0%	0%	1
		15	3	281	1.93	99.64%	0%	0.36%	0.9972
		16	6	281	4.63	97.51%	1.42%	1.07%	0.9909
		17	3	280	2.33	99.64%	0%	0.36%	0.9918
		18	3	281	2.48	100%	0%	0%	1
		19	3	281	2.75	100%	0%	0%	1
		20	3	280	2.04	99.29%	0%	0.71%	0.9869
		21	6	280	4.97	97.14%	2.50%	0.36%	0.9968
		22	3	280	2.10	100%	0%	0%	1

Table 21
Inter-rater Reliabilities for Reading/Language Arts (continued)

Content	Grade	Item			Second Read Rater Reliability				
		Number	Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa
RLA	5	1	3	276	2.21	98.91%	0%	1.09%	0.9811
		2	3	276	2.65	100%	0%	0%	1
		3	3	275	2.27	99.27%	0%	0.73%	0.9839
		4	3	276	2.44	100%	0%	0%	1
		5	3	275	1.89	98.91%	0%	1.09%	0.9825
		6	3	274	1.40	98.18%	0%	1.82%	0.9720
		7	3	273	1.84	98.53%	0%	1.47%	0.9783
		8	3	276	2.74	96.74%	0%	3.26%	0.8543
		9	3	275	2.63	100%	0%	0%	1
		10	3	276	2.37	98.55%	0.36%	1.09%	0.9761
		11	3	276	2.29	98.91%	0%	1.09%	0.9765
		12	3	276	2.23	98.55%	0%	1.45%	0.9694
		13	3	276	2.73	100%	0%	0%	1
		14	3	275	2.45	99.64%	0.36%	0%	0.9989
		15	3	276	2.37	98.91%	0%	1.09%	0.9746
		16	3	274	2.48	99.27%	0%	0.73%	0.9800
		17	3	276	2.11	98.55%	0%	1.45%	0.9710
		18	3	275	1.54	98.18%	0.36%	1.45%	0.9747
		19	3	275	2.28	99.27%	0%	0.73%	0.9913
		20	3	273	2.50	98.90%	0%	1.10%	0.9733
		21	3	276	1.53	99.64%	0%	0.36%	0.9973
		22	3	273	2.45	98.53%	0.37%	1.10%	0.9658
		23	3	276	2.14	98.19%	0.72%	1.09%	0.9780
		24	3	270	1.46	100%	0%	0%	1
		25	3	276	1.30	98.91%	0%	1.09%	0.9824
		26	3	273	2.34	99.27%	0%	0.73%	0.9827

Table 21
Inter-rater Reliabilities for Reading/Language Arts (continued)

Content	Grade	Number	Item			Second Read Rater Reliability				
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa	
			1	3	263	2.70	99.24%	0.38%	0.38%	0.9926
			2	3	263	2.28	99.62%	0%	0.38%	0.9913
			3	3	263	1.92	100%	0%	0%	1
			4	3	263	2.62	99.62%	0%	0.38%	0.9945
			5	3	263	2.65	99.62%	0.38%	0%	0.9984
			6	3	263	2.10	99.62%	0%	0.38%	0.9926
			7	3	263	2.63	99.62%	0.38%	0%	0.9985
			8	3	263	2.37	100%	0%	0%	1
			9	3	263	2.19	99.62%	0%	0.38%	0.9968
			10	3	263	2.57	99.62%	0%	0.38%	0.9952
			11	3	263	2.61	100%	0%	0%	1
			12	3	263	2.45	99.62%	0.38%	0%	0.9989
			13	3	263	2.01	99.62%	0%	0.38%	0.9932
			14	3	263	1.79	99.62%	0%	0.38%	0.9935
RLA	6		15	3	262	2.68	100%	0%	0%	1
			16	3	262	2.63	99.62%	0%	0.38%	0.9873
			17	6	263	3.31	99.24%	0.76%	0%	0.9997
			18	3	263	2.33	99.62%	0%	0.38%	0.9915
			19	3	263	2.19	99.62%	0%	0.38%	0.9925
			20	3	263	2.22	99.62%	0%	0.38%	0.9923
			21	3	263	2.83	100%	0%	0%	1
			22	3	263	2.62	99.62%	0.38%	0%	0.9985
			23	3	263	2.05	99.24%	0.38%	0.38%	0.9917
			24	3	263	2.16	100%	0%	0%	1
			25	3	263	2.02	100%	0%	0%	1
			26	3	263	2.33	99.24%	0%	0.76%	0.9843
			27	3	263	2.43	99.62%	0.38%	0%	0.9989
			28	3	263	2.34	100%	0%	0%	1
			29	3	262	2.27	98.85%	0.38%	0.76%	0.9823

Table 21
Inter-rater Reliabilities for Reading/Language Arts (continued)

Content	Grade	Item			Second Read Rater Reliability				
		Number	Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa
		1	3	262	2.84	100%	0%	0%	1
		2	3	262	2.65	100%	0%	0%	1
		3	3	261	2.45	99.62%	0.38%	0%	0.9987
		4	3	261	2.73	99.62%	0.38%	0%	0.9980
		5	3	262	2.70	99.62%	0%	0.38%	0.9849
		6	3	262	2.03	99.62%	0%	0.38%	0.9923
		7	3	262	2.72	99.62%	0%	0.38%	0.9815
		8	3	262	2.71	99.62%	0%	0.38%	0.9815
		9	3	260	2.61	99.62%	0%	0.38%	0.9867
		10	3	262	2.49	100%	0%	0%	1
		11	3	261	2.66	98.85%	0%	1.15%	0.9640
		12	3	262	2.39	100%	0%	0%	1
		13	3	261	2.43	100%	0%	0%	1
		14	3	261	2.59	100%	0%	0%	1
		15	3	262	2.60	100%	0%	0%	1
		16	3	261	2.20	100%	0%	0%	1
		17	3	258	2.72	99.22%	0.39%	0.39%	0.9795
		18	6	261	2.96	95.79%	2.30%	1.92%	0.9786
RLA	7	19	3	261	2.16	100%	0%	0%	1
		20	3	261	2.54	100%	0%	0%	1
		21	3	261	2.58	100%	0%	0%	1
		22	3	261	2.42	100%	0%	0%	1
		23	3	260	2.52	100%	0%	0%	1
		24	3	261	2.36	99.62%	0%	0.38%	0.9911
		25	3	260	2.28	99.62%	0%	0.38%	0.9918
		26	6	260	4.97	91.15%	7.69%	1.15%	0.9752
		27	3	261	2.34	98.08%	1.15%	0.77%	0.9821
		28	3	260	2.51	100%	0%	0%	1
		29	3	261	2.34	100%	0%	0%	1
		30	3	260	2.12	99.23%	0.38%	0.38%	0.9910
		31	3	261	1.59	100%	0%	0%	1
		32	3	261	1.88	98.47%	0.38%	1.15%	0.9788
		33	3	262	1.69	99.24%	0%	0.76%	0.9875
		34	3	261	1.79	99.62%	0%	0.38%	0.9935
		35	3	262	2.20	100%	0%	0%	1
		36	3	260	2.48	99.62%	0%	0.38%	0.9890
		37	3	257	1.43	99.61%	0%	0.39%	0.9931

Table 21
Inter-rater Reliabilities for Reading/Language Arts (continued)

Content	Grade	Item			Second Read Rater Reliability				
		Number	Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa
RLA	8	1	3	262	2.84	99.62%	0.38%	0%	0.9967
		2	3	261	2.17	99.62%	0%	0.38%	0.9925
		3	3	262	2.57	99.24%	0%	0.76%	0.9778
		4	3	262	1.70	100%	0%	0%	1
		5	3	262	2.81	99.62%	0%	0.38%	0.9782
		6	3	262	2.58	99.62%	0%	0.38%	0.9882
		7	3	260	2.18	99.62%	0%	0.38%	0.9922
		8	3	262	2.63	99.24%	0%	0.76%	0.9785
		9	3	261	2.70	99.62%	0%	0.38%	0.9924
		10	6	262	4.56	95.80%	3.05%	1.15%	0.9800
		11	3	262	2.61	99.62%	0%	0.38%	0.9943
		12	3	262	2.34	99.62%	0%	0.38%	0.9957
		13	3	262	2.83	99.62%	0%	0.38%	0.9890
		14	3	262	1.27	98.47%	0%	1.53%	0.9735
		15	3	262	0.88	98.85%	0%	1.15%	0.9765
		16	3	261	1.17	98.85%	0%	1.15%	0.9794
		17	3	262	1.55	98.85%	0%	1.15%	0.9805
		18	3	262	2.18	99.62%	0%	0.38%	0.9924
		19	3	262	1.63	100%	0%	0%	1
		20	3	261	1.71	100%	0%	0%	1
		21	3	261	1.90	98.47%	0.38%	1.15%	0.9813
		22	3	262	2.69	99.24%	0%	0.76%	0.9757
		23	6	262	4.16	90.84%	6.49%	2.67%	0.9587
		24	3	262	2.74	98.85%	0.38%	0.76%	0.9704
		25	3	262	2.73	99.62%	0%	0.38%	0.9919
		26	6	261	2.72	93.87%	3.83%	2.30%	0.9713
		27	3	260	2.43	98.85%	0%	1.15%	0.9722
		28	6	262	3.63	95.80%	1.15%	3.05%	0.9675
		29	6	262	4.44	95.04%	4.20%	0.76%	0.9825

Table 21
Inter-rater Reliabilities for Reading/Language Arts (continued)

Content	Grade	Item			Second Read Rater Reliability				
		Number	Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa
RLA	11	1	3	264	2.81	99.62%	0.38%	0%	0.9973
		2	3	265	2.70	99.62%	0%	0.38%	0.9849
		3	3	265	2.22	100%	0%	0%	1
		4	3	265	2.68	100%	0%	0%	1
		5	3	265	2.08	99.25%	0.38%	0.38%	0.9918
		6	3	265	2.62	99.62%	0.38%	0%	0.9985
		7	6	263	5.05	96.96%	2.28%	0.76%	0.9827
		8	3	265	2.68	100%	0%	0%	1
		9	3	265	2.44	99.62%	0%	0.38%	0.9957
		10	3	265	2.33	100%	0%	0%	1
		11	3	264	2.39	99.24%	0.38%	0.38%	0.9894
		12	3	265	2.35	100%	0%	0%	1
		13	3	265	2.74	100%	0%	0%	1
		14	3	265	2.50	100%	0%	0%	1
		15	3	265	2.57	100%	0%	0%	1
		16	3	265	2.46	100%	0%	0%	1
		17	3	265	2.44	100%	0%	0%	1
		18	3	264	2.13	98.86%	0.38%	0.76%	0.9836
		19	3	265	2.33	99.62%	0%	0.38%	0.9908
		20	3	265	1.79	99.25%	0.38%	0.38%	0.9925
		21	3	265	2.68	100%	0%	0%	1
		22	3	265	2.11	100%	0%	0%	1
		23	3	265	2.41	100%	0%	0%	1
		24	3	265	2.17	99.25%	0.38%	0.38%	0.9908
		25	3	265	2.28	99.25%	0.38%	0.38%	0.9645
		26	6	261	3.75	94.64%	2.68%	2.68%	0.9654

Table 22
Inter-rater Reliabilities for Science

Content	Grade	Item			Second Read Rater Reliability				
		Number	Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa
		1	3	281	2.70	100%	0%	0%	1
		2	3	281	2.59	99.64%	0%	0.36%	0.9949
		3	6	280	2.99	96.79%	1.43%	1.79%	0.9888
		4	6	280	2.59	96.07%	1.07%	2.86%	0.9733
		5	3	281	2.67	100%	0%	0%	1
		6	3	281	2.23	98.93%	0%	1.07%	0.9770
		7	3	281	1.93	99.64%	0%	0.36%	0.9936
		8	3	281	2.44	100%	0%	0%	1
		9	3	281	2.06	99.64%	0%	0.36%	0.9971
		10	3	281	2.09	99.64%	0%	0.36%	0.9933
		11	3	281	2.79	100%	0%	0%	1
		12	3	281	2.77	99.29%	0%	0.71%	0.9736
		13	6	281	3.35	98.22%	0.71%	1.07%	0.9943
		14	3	281	2.56	100%	0%	0%	1
SC	4	15	3	281	2.63	100%	0%	0%	1
		16	3	281	2.68	100%	0%	0%	1
		17	3	280	2.13	99.64%	0%	0.36%	0.9931
		18	6	281	3.33	97.51%	1.07%	1.42%	0.9880
		19	3	281	2.59	99.64%	0.36%	0%	0.9987
		20	3	281	2.66	99.64%	0%	0.36%	0.9869
		21	3	281	2.62	100%	0%	0%	1
		22	3	279	1.71	99.28%	0.36%	0.36%	0.9934
		23	3	281	2.79	100%	0%	0%	1
		24	3	281	2.72	100%	0%	0%	1
		25	3	281	2.18	99.64%	0%	0.36%	0.9932
		26	3	281	2.41	100%	0%	0%	1
		27	3	281	2.60	99.64%	0.36%	0%	0.9986
		28	3	281	2.72	100%	0%	0%	1
		29	3	280	2.44	100%	0%	0%	1
		30	3	281	2.08	98.93%	0%	1.07%	0.9878

Table 22
Inter-rater Reliabilities for Science (continued)

Content	Grade	Number	Item			Second Read Rater Reliability				
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa	
			1	3	264	2.64	100%	0%	0%	1
			2	3	264	2.63	100%	0%	0%	1
			3	3	264	2.28	99.24%	0%	0.76%	0.9841
			4	3	264	2.09	98.86%	0.76%	0.38%	0.9908
			5	6	264	2.64	98.11%	0.38%	1.52%	0.9867
			6	6	264	3.02	98.48%	0.38%	1.14%	0.9914
			7	3	264	2.73	99.62%	0%	0.38%	0.9849
			8	3	264	2.57	100%	0%	0%	1
			9	3	264	2.61	100%	0%	0%	1
			10	6	264	4.88	99.24%	0.38%	0.38%	0.9958
			11	3	263	2.00	99.62%	0.38%	0%	0.9992
			12	3	264	2.39	99.62%	0.38%	0%	0.9990
			13	6	264	4.20	96.97%	0.76%	2.27%	0.9748
			14	3	264	2.76	99.24%	0.38%	0.38%	0.9891
			15	3	264	1.70	99.24%	0.76%	0%	0.9985
SC	6		16	3	263	2.61	100%	0%	0%	1
			17	3	264	2.09	100%	0%	0%	1
			18	3	264	2.58	99.24%	0.38%	0.38%	0.9864
			19	3	264	2.54	99.62%	0%	0.38%	0.9951
			20	3	264	1.24	99.62%	0%	0.38%	0.9971
			21	3	264	1.80	100%	0%	0%	1
			22	3	264	1.97	100%	0%	0%	1
			23	3	264	2.27	100%	0%	0%	1
			24	3	264	2.60	99.62%	0%	0.38%	0.9878
			25	3	264	2.51	100%	0%	0%	1
			26	3	264	2.09	99.62%	0%	0.38%	0.9927
			27	3	264	2.52	100%	0%	0%	1
			28	3	264	2.49	100%	0%	0%	1
			29	3	264	2.43	100%	0%	0%	1
			30	3	263	2.48	99.62%	0.38%	0%	0.9989
			31	3	263	2.55	99.24%	0.38%	0.38%	0.9878
			32	6	263	3.71	95.06%	3.04%	1.90%	0.9728
			33	3	260	2.54	99.62%	0.38%	0%	0.9986

Table 22
Inter-rater Reliabilities for Science (continued)

Content	Grade	Number	Item			Second Read Rater Reliability			
			Maximum Score	N Count	Mean Score	Perfect	Adjacent	Discrepant	Weighted Kappa
		1	3	264	2.13	100%	0%	0%	1
		2	3	262	2.59	100%	0%	0%	1
		3	3	265	2.32	99.62%	0.38%	0%	0.9990
		4	3	265	2.15	100%	0%	0%	1
		5	3	264	1.76	100%	0%	0%	1
		6	6	265	3.22	96.60%	0%	3.40%	0.9584
		7	3	261	2.27	99.62%	0%	0.38%	0.9960
		8	3	263	2.53	99.62%	0.38%	0%	0.9988
		9	3	264	2.53	99.62%	0.38%	0%	0.9987
		10	6	264	5.02	98.48%	0.76%	0.76%	0.9894
		11	3	265	2.11	100%	0%	0%	1
		12	3	265	2.43	100%	0%	0%	1
		13	6	265	4.98	97.74%	0.75%	1.51%	0.9691
		14	3	265	2.02	100%	0%	0%	1
		15	3	265	1.58	100%	0%	0%	1
		16	3	261	2.43	100%	0%	0%	1
SC	11	17	3	265	2.32	100%	0%	0%	1
		18	3	265	1.32	99.62%	0%	0.38%	0.9937
		19	3	265	2.31	99.62%	0%	0.38%	0.9916
		20	6	263	3.77	96.58%	0%	3.42%	0.9550
		21	3	265	2.04	100%	0%	0%	1
		22	3	263	2.31	100%	0%	0%	1
		23	3	263	1.52	99.24%	0%	0.76%	0.9906
		24	3	265	1.89	99.25%	0.38%	0.38%	0.9922
		25	3	265	2.55	100%	0%	0%	1
		26	3	265	1.58	98.87%	0%	1.13%	0.9816
		27	3	265	2.60	100%	0%	0%	1
		28	3	265	2.23	99.62%	0.38%	0%	0.9991
		29	3	265	2.49	100%	0%	0%	1
		30	3	265	2.25	100%	0%	0%	1
		31	6	264	4.88	98.48%	0.76%	0.76%	0.9912
		32	3	264	2.32	98.86%	0.76%	0.38%	0.9937
		33	3	264	2.24	99.62%	0.38%	0%	0.9991

Table 23
Frequency Distributions for Constructed-Response (6-point) Items

Content	Grade	Item Number	Percent of Students Obtaining Score Level							
			0	1	2	3	4	5	6	
MA	3	34	48.61	3.98	7.97	1.59	1.59	12.75	23.51	
		3	9.19	0.35	7.77	2.47	3.53	13.78	62.90	
	4	22	19.43	1.41	8.83	0.71	1.06	4.24	64.31	
		29	13.78	3.18	8.48	1.06	2.12	10.60	60.78	
	5	1	19.00	2.15	8.60	2.87	3.94	14.34	49.10	
		10	4.66	0.36	10.04	0	5.38	0.36	79.21	
		11	18.64	0.72	7.17	1.79	7.17	11.47	53.05	
	6	19	11.47	0.72	7.17	0.72	6.09	4.66	69.18	
		28	14.02	0.38	11.36	1.14	4.55	9.85	58.71	
	7	31	21.21	1.89	9.47	1.14	3.03	25.38	37.88	
		7	64.42	0.75	4.87	0	3.37	0	26.59	
	11	28	46.55	1.09	10.18	1.45	2.91	12.73	25.09	
	RLA	3	12	8.37	3.98	8.37	1.20	0	11.95	66.14
			21	17.93	2.79	9.16	1.20	2.39	10.36	56.18
4		12	12.01	1.41	10.95	1.77	1.41	5.65	66.78	
		16	13.78	1.41	8.13	0.71	2.47	10.60	62.90	
6		21	10.25	1.06	7.07	1.06	1.06	7.77	71.73	
		17	36.36	0	9.85	0.38	4.55	0.38	48.48	
7		18	45.69	1.87	2.62	1.12	3.37	6.37	38.95	
		26	12.36	1.12	7.12	0	1.87	6.37	71.16	
8		10	12.83	1.89	8.30	0.75	1.89	20.75	53.58	
		23	16.23	2.26	7.55	1.51	1.51	32.83	38.11	
		26	49.06	0.38	3.40	0.75	3.77	11.32	31.32	
		28	30.57	0.75	4.15	3.40	3.77	15.85	41.51	
		29	14.34	2.26	8.30	0.75	2.26	20.38	51.70	
11		7	11.27	0.73	5.82	1.09	1.82	6.91	72.36	
	26	32.73	0.36	6.55	0	4.73	2.18	53.45		
SC	3	3	39.58	0	13.07	0	6.71	0.35	40.28	
		4	46.29	0.35	12.01	0	5.65	0	35.69	
	4	13	31.80	1.06	11.31	0.71	8.48	4.95	41.70	
		18	34.63	0	11.66	0	4.95	0.71	48.06	
	6	5	46.59	0	10.98	0	6.06	0	36.36	
		6	40.53	0	11.36	0	4.92	0	43.18	
		10	5.30	0.38	8.33	2.27	4.17	29.55	50.00	
		13	18.56	0.38	8.33	3.03	6.06	10.23	53.41	
		32	24.62	1.14	7.58	1.89	1.14	35.23	28.41	
	11	6	40.00	0	8.36	0.36	4.00	5.45	41.82	
		10	9.09	1.45	6.91	1.45	2.91	13.82	64.36	
		13	9.45	0.73	7.27	0.73	2.55	18.91	60.36	
		20	30.55	0	8.73	0.36	3.64	1.82	54.91	
		31	11.64	1.09	6.55	0.73	2.91	16.73	60.36	

Table 24
Item Level Statistics With and Without Level of Assistance for Mathematics

Content	Grade	Item	With Level of Assistance			Without Level of Assistance			
			Max Score	Item Points	Item-Test Difficulty	Item-Test Correlation	Max Score	Item Points	Item-Test Difficulty
		1	3	0.90	0.60	1	1	0.87	0.70
		2	3	0.68	0.67	2	1	0.59	0.68
		3	3	0.66	0.70	3	1	0.57	0.72
		4	3	0.71	0.51	4	1	0.65	0.58
		5	3	0.78	0.62	5	1	0.75	0.70
		6	3	0.74	0.56	6	1	0.70	0.65
		7	3	0.67	0.48	7	1	0.62	0.57
		8	3	0.32	0.32	8	1	0.27	0.42
		9	3	0.84	0.62	9	1	0.76	0.68
		10	3	0.81	0.69	10	1	0.73	0.72
		11	3	0.75	0.58	11	1	0.70	0.65
		12	3	0.83	0.64	12	1	0.77	0.74
		13	3	0.65	0.53	13	1	0.59	0.60
		14	3	0.57	0.48	14	1	0.49	0.54
		15	3	0.73	0.54	15	1	0.67	0.59
		16	3	0.86	0.66	16	1	0.83	0.75
MA	3	17	3	0.83	0.63	17	1	0.79	0.72
		18	3	0.79	0.55	18	1	0.73	0.65
		19	3	0.44	0.32	19	1	0.37	0.40
		20	3	0.80	0.66	20	1	0.73	0.71
		21	3	0.88	0.59	21	1	0.84	0.69
		22	3	0.38	0.36	22	1	0.32	0.44
		23	3	0.66	0.57	23	1	0.61	0.62
		24	3	0.72	0.61	24	1	0.66	0.69
		25	3	0.71	0.58	25	1	0.66	0.67
		26	3	0.72	0.51	26	1	0.68	0.61
		27	3	0.79	0.55	27	1	0.74	0.64
		28	3	0.78	0.67	28	1	0.74	0.70
		29	3	0.48	0.48	29	1	0.43	0.52
		30	3	0.76	0.57	30	1	0.71	0.66
		31	3	0.48	0.53	31	1	0.44	0.57
		32	3	0.87	0.67	32	1	0.81	0.74
		33	3	0.68	0.52	33	1	0.62	0.61
		34	6	0.40	0.55	34	2	0.30	0.56

Table 24
Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	With Level of Assistance			Without Level of Assistance				
		Max Score	Item Points	Item-Test Difficulty	Max Score	Item Points	Item-Test Difficulty	Correlation	
		1	3	0.90	0.60	1	1	0.87	0.66
		2	3	0.87	0.52	2	1	0.82	0.58
		3	6	0.81	0.75	3	2	0.70	0.79
		4	3	0.70	0.60	4	1	0.60	0.65
		5	3	0.85	0.65	5	1	0.82	0.74
		6	3	0.83	0.59	6	1	0.79	0.67
		7	3	0.80	0.50	7	1	0.73	0.60
		8	3	0.64	0.43	8	1	0.60	0.53
		9	3	0.75	0.57	9	1	0.69	0.66
		10	3	0.75	0.65	10	1	0.70	0.70
		11	3	0.79	0.60	11	1	0.75	0.65
		12	3	0.71	0.59	12	1	0.67	0.64
		13	3	0.67	0.59	13	1	0.59	0.63
		14	3	0.84	0.62	14	1	0.78	0.71
		15	3	0.85	0.66	15	1	0.82	0.70
MA	4	16	3	0.81	0.69	16	1	0.78	0.72
		17	3	0.89	0.60	17	1	0.86	0.66
		18	3	0.80	0.65	18	1	0.77	0.70
		19	3	0.67	0.45	19	1	0.62	0.55
		20	3	0.49	0.32	20	1	0.45	0.38
		21	3	0.81	0.62	21	1	0.75	0.68
		22	6	0.72	0.71	22	2	0.67	0.76
		23	3	0.71	0.59	23	1	0.64	0.67
		24	3	0.71	0.58	24	1	0.64	0.68
		25	3	0.91	0.60	25	1	0.87	0.68
		26	3	0.85	0.64	26	1	0.79	0.72
		27	3	0.36	0.47	27	1	0.30	0.50
		28	3	0.48	0.46	28	1	0.42	0.53
		29	6	0.75	0.73	29	2	0.67	0.78
		30	3	0.69	0.73	30	1	0.62	0.76
		31	3	0.66	0.69	31	1	0.58	0.71

Table 24
Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	With Level of Assistance			Without Level of Assistance				
		Max Score	Item Points	Item-Test Difficulty	Item-Test Correlation	Max Score	Item Points	Item-Test Difficulty	Item-Test Correlation
MA	5	1	6	0.68	0.73	1	2	0.56	0.73
		2	3	0.83	0.59	2	1	0.79	0.67
		3	3	0.66	0.31	3	1	0.62	0.42
		4	3	0.87	0.62	4	1	0.83	0.68
		5	3	0.80	0.53	5	1	0.75	0.66
		6	3	0.65	0.59	6	1	0.58	0.66
		7	3	0.77	0.54	7	1	0.71	0.64
		8	3	0.74	0.64	8	1	0.68	0.69
		9	3	0.92	0.54	9	1	0.89	0.65
		10	6	0.87	0.79	10	2	0.80	0.81
		11	6	0.71	0.64	11	2	0.59	0.68
		12	3	0.88	0.48	12	1	0.84	0.58
		13	3	0.83	0.77	13	1	0.79	0.79
		14	3	0.72	0.54	14	1	0.67	0.62
		15	3	0.79	0.57	15	1	0.74	0.64
		16	3	0.87	0.66	16	1	0.82	0.72
		17	3	0.86	0.75	17	1	0.83	0.79
		18	3	0.85	0.70	18	1	0.82	0.77
		19	6	0.80	0.71	19	2	0.72	0.76
		20	3	0.88	0.50	20	1	0.85	0.58
		21	3	0.71	0.46	21	1	0.64	0.56
		22	3	0.65	0.53	22	1	0.61	0.60
		23	3	0.90	0.66	23	1	0.86	0.73
		24	3	0.83	0.66	24	1	0.80	0.73
		25	3	0.86	0.66	25	1	0.83	0.73
		26	3	0.83	0.66	26	1	0.80	0.72
		27	3	0.67	0.58	27	1	0.63	0.63
		28	3	0.74	0.63	28	1	0.70	0.70
		29	3	0.74	0.63	29	1	0.71	0.68
		30	3	0.83	0.65	30	1	0.78	0.74
		31	3	0.79	0.61	31	1	0.75	0.70
		32	3	0.77	0.50	32	1	0.70	0.60
		33	3	0.84	0.63	33	1	0.79	0.72
		34	3	0.66	0.59	34	1	0.58	0.67
		35	3	0.80	0.55	35	1	0.74	0.63
		36	3	0.71	0.60	36	1	0.67	0.67

Table 24
Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	With Level of Assistance			Without Level of Assistance				
		Max Score	Item Difficulty	Item-Test Correlation	Max Score	Item Difficulty	Item-Test Correlation		
		1	3	0.87	0.47	1	1	0.83	0.56
		2	3	1.00	0.10	2	1	1.00	0.12
		3	3	0.51	0.40	3	1	0.48	0.47
		4	3	0.53	0.51	4	1	0.49	0.60
		5	3	0.29	0.38	5	1	0.21	0.45
		6	3	0.87	0.60	6	1	0.83	0.69
		7	3	0.57	0.36	7	1	0.52	0.42
		8	3	0.83	0.68	8	1	0.78	0.78
		9	3	0.80	0.73	9	1	0.76	0.81
		10	3	0.78	0.66	10	1	0.73	0.76
		11	3	0.74	0.56	11	1	0.68	0.65
		12	3	0.76	0.55	12	1	0.68	0.63
		13	3	0.75	0.46	13	1	0.68	0.62
		14	3	0.76	0.47	14	1	0.70	0.63
		15	3	0.69	0.69	15	1	0.62	0.74
MA	6	16	3	0.81	0.65	16	1	0.74	0.74
		17	3	0.73	0.61	17	1	0.67	0.71
		18	3	0.69	0.59	18	1	0.63	0.66
		19	3	0.46	0.45	19	1	0.40	0.49
		20	3	0.63	0.62	20	1	0.53	0.66
		21	3	0.52	0.60	21	1	0.43	0.62
		22	3	0.48	0.38	22	1	0.41	0.47
		23	3	0.50	0.40	23	1	0.43	0.49
		24	3	0.78	0.56	24	1	0.72	0.62
		25	3	0.76	0.62	25	1	0.70	0.67
		26	3	0.74	0.61	26	1	0.70	0.66
		27	3	0.77	0.60	27	1	0.71	0.69
		28	6	0.74	0.54	28	2	0.63	0.64
		29	3	0.76	0.56	29	1	0.71	0.65
		30	3	0.56	0.31	30	1	0.52	0.38
		31	6	0.65	0.65	31	2	0.51	0.65

Table 24
Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	With Level of Assistance			Without Level of Assistance				
		Max Score	Item Points	Item-Test Difficulty	Max Score	Item Points	Item-Test Difficulty	Correlation	
MA	7	1	3	0.91	0.51	1	1	0.86	0.68
		2	3	0.76	0.39	2	1	0.71	0.52
		3	3	0.73	0.50	3	1	0.71	0.60
		4	3	0.90	0.55	4	1	0.87	0.68
		5	3	0.75	0.63	5	1	0.73	0.68
		6	3	0.82	0.57	6	1	0.79	0.63
		7	6	0.31	0.43	7	2	0.27	0.44
		8	3	0.92	0.51	8	1	0.88	0.63
		9	3	0.66	0.66	9	1	0.60	0.69
		10	3	0.53	0.45	10	1	0.48	0.44
		11	3	0.92	0.49	11	1	0.89	0.60
		12	3	0.68	0.55	12	1	0.61	0.59
		13	3	0.63	0.47	13	1	0.59	0.48
		14	3	0.75	0.48	14	1	0.72	0.52
		15	3	0.87	0.57	15	1	0.84	0.69
		16	3	0.87	0.64	16	1	0.83	0.74
		17	3	0.78	0.56	17	1	0.73	0.65
		18	3	0.79	0.52	18	1	0.75	0.62
		19	3	0.55	0.62	19	1	0.50	0.63
		20	3	0.64	0.63	20	1	0.55	0.62
		21	3	0.68	0.50	21	1	0.62	0.54
		22	3	0.53	0.50	22	1	0.48	0.55
		23	3	0.61	0.54	23	1	0.56	0.58
		24	3	0.64	0.47	24	1	0.59	0.53
		25	3	0.66	0.53	25	1	0.61	0.55
		26	3	0.90	0.56	26	1	0.87	0.68
		27	3	0.89	0.48	27	1	0.85	0.62
		28	3	0.35	0.15	28	1	0.32	0.21
		29	3	0.26	0.18	29	1	0.22	0.25
		30	3	0.45	0.35	30	1	0.37	0.38
		31	3	0.87	0.50	31	1	0.83	0.61

Table 24
Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	With Level of Assistance			Without Level of Assistance				
		Max Score	Item Points	Item-Test Difficulty	Max Score	Item Points	Item-Test Difficulty	Correlation	
		1	3	0.75	0.32	1	1	0.71	0.39
		2	3	0.92	0.38	2	1	0.89	0.58
		3	3	0.89	0.38	3	1	0.86	0.56
		4	3	0.65	0.32	4	1	0.62	0.39
		5	3	0.67	0.48	5	1	0.61	0.53
		6	3	0.79	0.56	6	1	0.75	0.66
		7	3	0.54	0.54	7	1	0.48	0.54
		8	3	0.30	0.13	8	1	0.25	0.19
		9	3	0.82	0.52	9	1	0.79	0.62
		10	3	0.71	0.44	10	1	0.67	0.50
		11	3	0.51	0.60	11	1	0.45	0.58
		12	3	0.64	0.25	12	1	0.59	0.34
		13	3	0.69	0.44	13	1	0.64	0.52
		14	3	0.67	0.50	14	1	0.63	0.55
		15	3	0.70	0.39	15	1	0.66	0.47
		16	3	0.61	0.31	16	1	0.54	0.38
		17	3	0.54	0.65	17	1	0.49	0.65
		18	3	0.53	0.64	18	1	0.48	0.64
		19	3	0.54	0.63	19	1	0.49	0.64
MA	8	20	3	0.52	0.64	20	1	0.48	0.64
		21	3	0.38	0.44	21	1	0.32	0.42
		22	3	0.61	0.46	22	1	0.55	0.50
		23	3	0.59	0.35	23	1	0.54	0.41
		24	3	0.55	0.40	24	1	0.51	0.45
		25	3	0.86	0.48	25	1	0.84	0.62
		26	3	0.86	0.48	26	1	0.84	0.60
		27	3	0.85	0.49	27	1	0.83	0.61
		28	3	0.90	0.41	28	1	0.87	0.54
		29	3	0.39	0.50	29	1	0.29	0.43
		30	3	0.58	0.53	30	1	0.53	0.54
		31	3	0.88	0.38	31	1	0.84	0.51
		32	3	0.70	0.55	32	1	0.63	0.60
		33	3	0.79	0.48	33	1	0.73	0.58
		34	3	0.46	0.24	34	1	0.40	0.32
		35	3	0.90	0.52	35	1	0.87	0.64
		36	3	0.70	0.32	36	1	0.66	0.42
		37	3	0.36	0.15	37	1	0.32	0.18
		38	3	0.85	0.51	38	1	0.80	0.63

Table 24
Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	With Level of Assistance			Without Level of Assistance				
		Max Score	Item Difficulty	Item-Test Correlation	Max Score	Item Difficulty	Item-Test Correlation		
		1	3	0.88	0.51	1	1	0.84	0.64
		2	3	0.44	0.48	2	1	0.38	0.52
		3	3	0.73	0.56	3	1	0.68	0.64
		4	3	0.61	0.45	4	1	0.55	0.53
		5	3	0.86	0.37	5	1	0.81	0.57
		6	3	0.84	0.53	6	1	0.80	0.63
		7	3	0.41	0.41	7	1	0.34	0.46
		8	3	0.65	0.59	8	1	0.58	0.65
		9	3	0.31	0.56	9	1	0.26	0.58
		10	3	0.65	0.63	10	1	0.61	0.66
		11	3	0.72	0.58	11	1	0.67	0.66
		12	3	0.83	0.49	12	1	0.78	0.61
		13	3	0.65	0.51	13	1	0.59	0.59
		14	3	0.75	0.65	14	1	0.70	0.71
MA	11	15	3	0.79	0.42	15	1	0.73	0.56
		16	3	0.90	0.48	16	1	0.87	0.61
		17	3	0.86	0.55	17	1	0.83	0.63
		18	3	0.44	0.61	18	1	0.37	0.61
		19	3	0.43	0.69	19	1	0.36	0.68
		20	3	0.44	0.73	20	1	0.37	0.71
		21	3	0.44	0.64	21	1	0.38	0.66
		22	3	0.62	0.56	22	1	0.58	0.59
		23	3	0.41	0.41	23	1	0.34	0.46
		24	3	0.68	0.67	24	1	0.62	0.70
		25	3	0.52	0.39	25	1	0.42	0.47
		26	3	0.48	0.45	26	1	0.40	0.51
		27	3	0.73	0.62	27	1	0.68	0.70
		28	6	0.43	0.70	28	2	0.32	0.69
		29	3	0.42	0.42	29	1	0.37	0.45
		30	3	0.81	0.55	30	1	0.76	0.64

Table 25
Item Level Statistics With and Without Level of Assistance for Reading/Language Arts

Content	Grade	With Level of Assistance			Without Level of Assistance				
		Max Score	Item Points	Item-Test Difficulty	Max Score	Item Points	Item-Test Difficulty		
		1	3	0.93	0.53	1	1	0.91	0.59
		2	3	0.80	0.68	2	1	0.73	0.73
		3	3	0.78	0.47	3	1	0.73	0.59
		4	3	0.72	0.44	4	1	0.67	0.54
		5	3	0.69	0.35	5	1	0.64	0.49
		6	3	0.73	0.66	6	1	0.67	0.72
		7	3	0.73	0.57	7	1	0.66	0.66
		8	3	0.71	0.56	8	1	0.65	0.65
		9	3	0.79	0.54	9	1	0.75	0.63
		10	3	0.91	0.67	10	1	0.87	0.73
		11	3	0.73	0.60	11	1	0.66	0.68
		12	6	0.81	0.78	12	2	0.73	0.80
RLA	3	13	3	0.72	0.59	13	1	0.66	0.68
		14	3	0.72	0.61	14	1	0.67	0.68
		15	3	0.73	0.62	15	1	0.68	0.67
		16	3	0.73	0.61	16	1	0.67	0.67
		17	3	0.75	0.62	17	1	0.69	0.71
		18	3	0.81	0.61	18	1	0.77	0.68
		19	3	0.62	0.53	19	1	0.56	0.61
		20	3	0.86	0.68	20	1	0.82	0.74
		21	6	0.71	0.75	21	2	0.62	0.78
		22	3	0.52	0.45	22	1	0.44	0.53
		23	3	0.91	0.69	23	1	0.87	0.74
		24	3	0.59	0.65	24	1	0.53	0.68
		25	3	0.53	0.57	25	1	0.46	0.61
		26	3	0.80	0.68	26	1	0.77	0.69

Table 25
Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	With Level of Assistance			Without Level of Assistance				
		Item	Max		Item	Max			
			Score	Item-Test		Score	Item-Test		
Item	Points	Difficulty	Correlation	Points	Difficulty	Correlation			
		1	3	0.89	0.61	1	1	0.86	0.67
		2	3	0.93	0.42	2	1	0.91	0.52
		3	3	0.87	0.60	3	1	0.85	0.65
		4	3	0.77	0.59	4	1	0.72	0.65
		5	3	0.75	0.65	5	1	0.71	0.67
		6	3	0.81	0.68	6	1	0.76	0.77
		7	3	0.90	0.49	7	1	0.85	0.59
		8	3	0.64	0.39	8	1	0.58	0.52
		9	3	0.55	0.50	9	1	0.48	0.56
		10	3	0.63	0.48	10	1	0.56	0.54
RLA	4	11	3	0.91	0.66	11	1	0.87	0.72
		12	6	0.78	0.70	12	2	0.70	0.78
		14	3	0.93	0.61	14	1	0.90	0.70
		15	3	0.64	0.39	15	1	0.58	0.45
		16	6	0.77	0.77	16	2	0.69	0.82
		17	3	0.77	0.65	17	1	0.72	0.71
		18	3	0.83	0.60	18	1	0.78	0.67
		19	3	0.91	0.56	19	1	0.88	0.66
		20	3	0.68	0.57	20	1	0.62	0.62
		21	6	0.83	0.67	21	2	0.76	0.74
		22	3	0.68	0.63	22	1	0.64	0.66

* item 13 was suppressed from scoring

Table 25
Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	With Level of Assistance			Without Level of Assistance			
			Max Score	Item Points	Item-Test Difficulty	Item-Test Correlation	Max Score	Item Points	Item-Test Difficulty
RLA	5	1	3	0.74	0.60	1	1	0.70	0.66
		2	3	0.88	0.55	2	1	0.86	0.61
		3	3	0.76	0.61	3	1	0.71	0.71
		4	3	0.81	0.49	4	1	0.77	0.62
		5	3	0.63	0.66	5	1	0.54	0.69
		6	3	0.46	0.53	6	1	0.41	0.58
		7	3	0.61	0.63	7	1	0.53	0.67
		8	3	0.91	0.61	8	1	0.88	0.70
		9	3	0.87	0.62	9	1	0.84	0.70
		10	3	0.78	0.52	10	1	0.70	0.65
		11	3	0.77	0.70	11	1	0.71	0.75
		12	3	0.75	0.70	12	1	0.70	0.76
		13	3	0.91	0.58	13	1	0.87	0.70
		14	3	0.81	0.54	14	1	0.77	0.67
		15	3	0.79	0.67	15	1	0.74	0.74
		16	3	0.82	0.48	16	1	0.78	0.58
		17	3	0.71	0.50	17	1	0.67	0.55
		18	3	0.51	0.61	18	1	0.45	0.63
		19	3	0.76	0.54	19	1	0.72	0.63
		20	3	0.83	0.67	20	1	0.76	0.75
		21	3	0.51	0.33	21	1	0.46	0.44
		22	3	0.82	0.62	22	1	0.79	0.64
		23	3	0.72	0.69	23	1	0.64	0.75
		24	3	0.48	0.64	24	1	0.46	0.64
		25	3	0.43	0.24	25	1	0.37	0.33
		26	3	0.78	0.64	26	1	0.74	0.66

Table 25
Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	With Level of Assistance			Without Level of Assistance			
			Max Score	Item Points	Item-Test Difficulty	Max Score	Item Points	Item-Test Difficulty	Item-Test Correlation
RLA	6	1	3	0.90	0.69	1	1	0.84	0.76
		2	3	0.76	0.70	2	1	0.72	0.71
		3	3	0.64	0.37	3	1	0.57	0.44
		4	3	0.87	0.58	4	1	0.83	0.69
		5	3	0.88	0.65	5	1	0.85	0.71
		6	3	0.70	0.58	6	1	0.65	0.65
		7	3	0.87	0.48	7	1	0.83	0.59
		8	3	0.78	0.63	8	1	0.73	0.69
		9	3	0.73	0.51	9	1	0.65	0.59
		10	3	0.86	0.64	10	1	0.79	0.73
		11	3	0.87	0.70	11	1	0.80	0.79
		12	3	0.82	0.71	12	1	0.75	0.78
		13	3	0.66	0.63	13	1	0.59	0.69
		14	3	0.58	0.53	14	1	0.53	0.59
		15	3	0.89	0.59	15	1	0.85	0.69
		16	3	0.88	0.61	16	1	0.83	0.72
		17	6	0.55	0.64	17	2	0.48	0.67
		18	3	0.77	0.66	18	1	0.71	0.74
		19	3	0.73	0.67	19	1	0.67	0.74
		20	3	0.74	0.68	20	1	0.67	0.75
		21	3	0.94	0.56	21	1	0.91	0.64
		22	3	0.87	0.61	22	1	0.82	0.69
		23	3	0.69	0.61	23	1	0.62	0.64
		24	3	0.72	0.73	24	1	0.63	0.78
		25	3	0.67	0.67	25	1	0.61	0.75
		26	3	0.78	0.68	26	1	0.70	0.75
		27	3	0.81	0.70	27	1	0.75	0.78
		28	3	0.78	0.64	28	1	0.72	0.75
		29	3	0.75	0.62	29	1	0.68	0.70

Table 25
Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	With Level of Assistance			Without Level of Assistance			
			Max Score	Item Points	Item-Test Difficulty	Max Score	Item Points	Item-Test Difficulty	Item-Test Correlation
RLA	7	1	3	0.95	0.58	1	1	0.92	0.67
		2	3	0.88	0.67	2	1	0.84	0.72
		3	3	0.81	0.52	3	1	0.79	0.52
		4	3	0.91	0.60	4	1	0.88	0.65
		5	3	0.90	0.53	5	1	0.86	0.63
		6	3	0.68	0.48	6	1	0.65	0.51
		7	3	0.91	0.51	7	1	0.89	0.57
		8	3	0.91	0.56	8	1	0.89	0.62
		9	3	0.86	0.67	9	1	0.83	0.74
		10	3	0.83	0.65	10	1	0.79	0.71
		11	3	0.88	0.62	11	1	0.85	0.70
		12	3	0.80	0.69	12	1	0.76	0.72
		13	3	0.81	0.72	13	1	0.75	0.75
		14	3	0.86	0.61	14	1	0.81	0.67
		15	3	0.87	0.64	15	1	0.84	0.72
		16	3	0.73	0.62	16	1	0.70	0.66
		17	3	0.90	0.59	17	1	0.88	0.65
		18	6	0.49	0.49	18	2	0.43	0.49
		19	3	0.72	0.39	19	1	0.68	0.47
		20	3	0.84	0.64	20	1	0.79	0.70
		21	3	0.86	0.69	21	1	0.81	0.73
		22	3	0.80	0.66	22	1	0.75	0.69
		23	3	0.84	0.67	23	1	0.77	0.71
		24	3	0.78	0.60	24	1	0.73	0.65
		25	3	0.76	0.50	25	1	0.70	0.58
		26	6	0.82	0.53	26	2	0.76	0.63
		27	3	0.77	0.69	27	1	0.74	0.71
		28	3	0.83	0.69	28	1	0.80	0.74
		29	3	0.78	0.66	29	1	0.74	0.73
		30	3	0.70	0.54	30	1	0.66	0.60
		31	3	0.53	0.39	31	1	0.47	0.43
		32	3	0.62	0.50	32	1	0.55	0.53
		33	3	0.55	0.55	33	1	0.49	0.58
		34	3	0.59	0.54	34	1	0.53	0.56
		35	3	0.73	0.57	35	1	0.69	0.63
		36	3	0.82	0.63	36	1	0.78	0.71
		37	3	0.47	0.52	37	1	0.44	0.51

Table 25
Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	With Level of Assistance			Without Level of Assistance			
			Max Score	Item Points	Item-Test Difficulty	Max Score	Item Points	Item-Test Difficulty	Item-Test Correlation
		1	3	0.95	0.46	1	1	0.92	0.53
		2	3	0.73	0.54	2	1	0.66	0.61
		3	3	0.85	0.50	3	1	0.80	0.60
		4	3	0.57	0.33	4	1	0.52	0.38
		5	3	0.94	0.49	5	1	0.91	0.62
		6	3	0.86	0.36	6	1	0.82	0.52
		7	3	0.73	0.62	7	1	0.68	0.69
		8	3	0.87	0.48	8	1	0.85	0.59
		9	3	0.90	0.56	9	1	0.87	0.66
		10	6	0.76	0.73	10	2	0.64	0.72
		11	3	0.87	0.48	11	1	0.82	0.64
		12	3	0.78	0.64	12	1	0.74	0.69
		13	3	0.94	0.54	13	1	0.91	0.64
		14	3	0.42	0.22	14	1	0.38	0.31
RLA	8	15	3	0.29	0.35	15	1	0.26	0.39
		16	3	0.39	0.36	16	1	0.35	0.43
		17	3	0.52	0.42	17	1	0.48	0.51
		18	3	0.73	0.47	18	1	0.67	0.58
		19	3	0.54	0.47	19	1	0.50	0.55
		20	3	0.56	0.58	20	1	0.52	0.62
		21	3	0.64	0.44	21	1	0.58	0.52
		22	3	0.90	0.54	22	1	0.87	0.62
		23	6	0.70	0.68	23	2	0.54	0.68
		24	3	0.91	0.57	24	1	0.87	0.66
		25	3	0.91	0.56	25	1	0.87	0.65
		26	6	0.45	0.57	26	2	0.37	0.52
		27	3	0.81	0.57	27	1	0.75	0.63
		28	6	0.61	0.63	28	2	0.50	0.60
		29	6	0.74	0.69	29	2	0.62	0.72

Table 25
Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	With Level of Assistance			Without Level of Assistance			
			Max Score	Item Points	Item-Test Difficulty	Max Score	Item Points	Item-Test Difficulty	Item-Test Correlation
RLA	11	1	3	0.93	0.58	1	1	0.90	0.68
		2	3	0.90	0.63	2	1	0.86	0.71
		3	3	0.74	0.59	3	1	0.69	0.67
		4	3	0.89	0.63	4	1	0.85	0.72
		5	3	0.69	0.72	5	1	0.62	0.74
		6	3	0.87	0.68	6	1	0.82	0.73
		7	6	0.85	0.70	7	2	0.79	0.76
		8	3	0.88	0.51	8	1	0.84	0.63
		9	3	0.82	0.68	9	1	0.77	0.75
		10	3	0.78	0.57	10	1	0.73	0.62
		11	3	0.79	0.60	11	1	0.74	0.68
		12	3	0.78	0.61	12	1	0.74	0.69
		13	3	0.91	0.63	13	1	0.88	0.72
		14	3	0.83	0.73	14	1	0.80	0.77
		15	3	0.85	0.74	15	1	0.82	0.80
		16	3	0.82	0.79	16	1	0.79	0.82
		17	3	0.81	0.75	17	1	0.78	0.80
		18	3	0.70	0.53	18	1	0.65	0.62
		19	3	0.78	0.71	19	1	0.75	0.77
		20	3	0.60	0.48	20	1	0.55	0.57
		21	3	0.89	0.54	21	1	0.86	0.62
		22	3	0.70	0.52	22	1	0.66	0.61
		23	3	0.79	0.59	23	1	0.76	0.69
		24	3	0.72	0.39	24	1	0.68	0.50
		25	3	0.76	0.68	25	1	0.70	0.73
		26	6	0.63	0.66	26	2	0.57	0.66

Table 26
Item Level Statistics With and Without Level of Assistance for Science

Content	Grade	With Level of Assistance			Without Level of Assistance				
		Max Score	Item Points	Item-Test Difficulty	Max Score	Item Points	Item-Test Difficulty	Correlation	
SC	4	1	3	0.90	0.64	1	1	0.87	0.72
		2	3	0.86	0.59	2	1	0.82	0.69
		3	6	0.49	0.61	3	2	0.40	0.62
		4	6	0.44	0.43	4	2	0.36	0.48
		5	3	0.89	0.58	5	1	0.86	0.66
		6	3	0.74	0.44	6	1	0.70	0.56
		7	3	0.64	0.44	7	1	0.59	0.51
		8	3	0.81	0.49	8	1	0.78	0.59
		9	3	0.68	0.49	9	1	0.61	0.56
		10	3	0.70	0.43	10	1	0.64	0.52
		11	3	0.93	0.61	11	1	0.90	0.68
		12	3	0.92	0.63	12	1	0.90	0.71
		13	6	0.56	0.53	13	2	0.44	0.59
		14	3	0.85	0.64	14	1	0.82	0.70
		15	3	0.88	0.70	15	1	0.83	0.76
		16	3	0.89	0.57	16	1	0.85	0.68
		17	3	0.72	0.53	17	1	0.66	0.61
		18	6	0.56	0.57	18	2	0.48	0.62
		19	3	0.86	0.60	19	1	0.83	0.65
		20	3	0.89	0.69	20	1	0.85	0.76
		21	3	0.87	0.63	21	1	0.84	0.71
		22	3	0.56	0.36	22	1	0.47	0.42
		23	3	0.93	0.58	23	1	0.90	0.70
		24	3	0.91	0.64	24	1	0.86	0.73
		25	3	0.72	0.39	25	1	0.64	0.50
		26	3	0.80	0.55	26	1	0.75	0.61
		27	3	0.87	0.65	27	1	0.83	0.70
		28	3	0.91	0.59	28	1	0.88	0.68
		29	3	0.81	0.56	29	1	0.74	0.64
		30	3	0.69	0.49	30	1	0.60	0.57

Table 26
Item Level Statistics With and Without Level of Assistance for Science (continued)

Content	Grade	Item	With Level of Assistance			Without Level of Assistance			
			Max Score	Item Points	Item-Test Difficulty	Item-Test Correlation	Max Score	Item Points	Item-Test Difficulty
		1	3	0.88	0.65	1	1	0.84	0.72
		2	3	0.87	0.54	2	1	0.84	0.64
		3	3	0.76	0.58	3	1	0.70	0.64
		4	3	0.70	0.50	4	1	0.63	0.60
		5	6	0.44	0.38	5	2	0.36	0.48
		6	6	0.50	0.56	6	2	0.43	0.62
		7	3	0.91	0.62	7	1	0.86	0.70
		8	3	0.86	0.66	8	1	0.81	0.71
		9	3	0.87	0.54	9	1	0.82	0.67
		10	6	0.81	0.63	10	2	0.65	0.71
		11	3	0.67	0.34	11	1	0.62	0.46
		12	3	0.80	0.52	12	1	0.75	0.63
		13	6	0.70	0.59	13	2	0.59	0.69
		14	3	0.91	0.58	14	1	0.88	0.70
		15	3	0.57	0.52	15	1	0.48	0.58
		16	3	0.87	0.49	16	1	0.83	0.61
SC	6	17	3	0.70	0.40	17	1	0.63	0.52
		18	3	0.86	0.64	18	1	0.82	0.72
		19	3	0.85	0.60	19	1	0.80	0.65
		20	3	0.41	0.29	20	1	0.36	0.38
		21	3	0.60	0.41	21	1	0.55	0.51
		22	3	0.66	0.55	22	1	0.60	0.61
		23	3	0.76	0.55	23	1	0.72	0.63
		24	3	0.87	0.57	24	1	0.83	0.65
		25	3	0.83	0.62	25	1	0.79	0.73
		26	3	0.69	0.43	26	1	0.64	0.53
		27	3	0.84	0.69	27	1	0.78	0.78
		28	3	0.83	0.67	28	1	0.79	0.72
		29	3	0.81	0.62	29	1	0.75	0.73
		30	3	0.82	0.50	30	1	0.76	0.63
		31	3	0.85	0.62	31	1	0.80	0.71
		32	6	0.62	0.59	32	2	0.46	0.62
		33	3	0.84	0.66	33	1	0.80	0.71

Table 26
Item Level Statistics With and Without Level of Assistance for Science (continued)

Content	Grade	With Level of Assistance			Without Level of Assistance				
		Max Score	Item Points	Item-Test Difficulty	Max Score	Item Points	Item-Test Difficulty		
		1	3	0.71	0.53	1	1	0.65	0.60
		2	3	0.86	0.62	2	1	0.82	0.70
		3	3	0.77	0.49	3	1	0.73	0.57
		4	3	0.72	0.54	4	1	0.68	0.61
		5	3	0.59	0.38	5	1	0.55	0.40
		6	6	0.54	0.50	6	2	0.46	0.56
		7	3	0.76	0.61	7	1	0.71	0.68
		8	3	0.83	0.53	8	1	0.79	0.66
		9	3	0.84	0.60	9	1	0.80	0.68
		10	6	0.83	0.69	10	2	0.73	0.80
		11	3	0.70	0.48	11	1	0.65	0.61
		12	3	0.81	0.63	12	1	0.77	0.70
		13	6	0.83	0.67	13	2	0.72	0.78
		14	3	0.67	0.57	14	1	0.62	0.63
		15	3	0.53	0.35	15	1	0.50	0.43
		16	3	0.81	0.55	16	1	0.77	0.62
SC	11	17	3	0.77	0.61	17	1	0.73	0.66
		18	3	0.44	0.33	18	1	0.39	0.38
		19	3	0.77	0.58	19	1	0.72	0.67
		20	6	0.64	0.64	20	2	0.57	0.68
		21	3	0.68	0.52	21	1	0.64	0.60
		22	3	0.77	0.57	22	1	0.72	0.65
		23	3	0.50	0.30	23	1	0.45	0.38
		24	3	0.63	0.52	24	1	0.57	0.57
		25	3	0.85	0.55	25	1	0.81	0.65
		26	3	0.52	0.29	26	1	0.46	0.41
		27	3	0.86	0.62	27	1	0.83	0.72
		28	3	0.74	0.43	28	1	0.71	0.55
		29	3	0.83	0.64	29	1	0.79	0.72
		30	3	0.75	0.61	30	1	0.70	0.68
		31	6	0.82	0.68	31	2	0.71	0.72
		32	3	0.75	0.44	32	1	0.71	0.52
		33	3	0.74	0.51	33	1	0.69	0.60

Table 27
Summary of *P*-values and Point Biserials by Content Area and Grade Level

Content	Grade	<i>P</i> -Value			Point Biserial		
		High	Mean	Low	High	Mean	Low
MA	3	0.90	0.70	0.32	0.70	0.56	0.32
	4	0.91	0.74	0.36	0.75	0.60	0.32
	5	0.92	0.79	0.65	0.79	0.61	0.31
	6	1.00	0.69	0.29	0.73	0.53	0.10
	7	0.92	0.70	0.26	0.66	0.50	0.15
	8	0.92	0.66	0.30	0.65	0.44	0.13
	11	0.90	0.62	0.31	0.73	0.54	0.37
RLA	3	0.93	0.74	0.52	0.78	0.59	0.35
	4	0.93	0.78	0.55	0.77	0.58	0.39
	5	0.91	0.73	0.43	0.70	0.58	0.24
	6	0.94	0.78	0.55	0.73	0.62	0.37
	7	0.95	0.78	0.47	0.72	0.59	0.39
	8	0.95	0.72	0.29	0.73	0.51	0.22
	11	0.93	0.80	0.60	0.79	0.62	0.39
SC	4	0.93	0.78	0.44	0.70	0.56	0.36
	6	0.91	0.76	0.41	0.69	0.55	0.29
	11	0.86	0.72	0.44	0.69	0.53	0.29

Table 28
Standards Level Statistics, Ordered by Mean Difficulty (*P*-value) for Mathematics

Content	Grade	Standard		No. Items	<i>P</i> -value				Point Biserial				
		Number	Description		Subskill Description	High	Mean	Low	SD	High	Mean	Low	SD
	3	1.1	Numbers and Operations	count and recognize whole numbers to nine	7	0.90	0.79	0.67	0.09	0.70	0.65	0.60	0.03
		5.1	Data Analysis and Probability	use interviews and observations to collect data	3	0.87	0.76	0.68	0.10	0.67	0.58	0.52	0.08
		2.1	Algebra	recognize and complete a two-object pattern	4	0.84	0.73	0.57	0.12	0.62	0.54	0.48	0.06
		3.1	Geometry	classify basic plane geometric shapes including square, circle, triangle and...	8	0.88	0.70	0.48	0.15	0.62	0.56	0.48	0.04
		1.2	Numbers and Operations	solve single-digit addition problems with sums to nine	5	0.81	0.70	0.44	0.15	0.69	0.57	0.32	0.15
		4.1	Measurement	classify measuring devices according to what they measure (length, weight, te...	4	0.75	0.63	0.40	0.16	0.58	0.54	0.51	0.03
		4.2	Measurement	identify coins as a penny, nickel, dime and quarter	3	0.67	0.45	0.32	0.19	0.48	0.39	0.32	0.08
		MA	4	1.1	Numbers and Operations	count and recognize two-digit whole numbers to twenty and halves as two equal...	9	0.91	0.84	0.68	0.07	0.69	0.61
4.1	Measurement			recognize length as long/short, weight as heavy/light, and temperature as hot...	1	0.83	0.83	0.83	–	0.59	0.59	0.59	–
3.1	Geometry			classify and model basic geometric shapes	6	0.85	0.78	0.71	0.06	0.75	0.65	0.59	0.07
2.1	Algebra			recognize and complete a three-object/item pattern	4	0.87	0.75	0.64	0.10	0.73	0.58	0.43	0.13
5.1	Data Analysis and Probability			develop and interpret picture or object graphs	4	0.80	0.71	0.66	0.06	0.73	0.63	0.50	0.10
1.2	Numbers and Operations			solve addition problems with sums to 19, and model subtraction	3	0.71	0.70	0.67	0.02	0.59	0.59	0.58	0.00
4.2	Measurement			recognize time in relationship to a daily schedule	2	0.75	0.62	0.48	0.19	0.57	0.51	0.46	0.08
4.3	Measurement			identify values of coins and determine their relative values	2	0.49	0.43	0.36	0.09	0.47	0.40	0.32	0.10

Table 28
Standards Level Statistics, Ordered by Mean Difficulty (*P*-value) for Mathematics (continued)

Content	Grade	Standard		Subskill Description	No. Items	<i>P</i> -value				Point Biserial			
		Number	Description			High	Mean	Low	SD	High	Mean	Low	SD
MA	5	1.1	Numbers and Operations	recognize two-digit whole numbers to 40 and the fractional part 1/2	6	0.93	0.86	0.83	0.03	0.75	0.66	0.54	0.07
		3.1	Geometry	classify three dimensional objects (cube, sphere, pyramid)	6	0.88	0.85	0.80	0.04	0.79	0.61	0.50	0.11
		4.1	Measurement	measure length and weight using nonstandard forms of measurement (i.d. paperc...	3	0.84	0.77	0.72	0.06	0.63	0.58	0.50	0.07
		5.1	Data Analysis and Probability	develop bar graphs and interpret data	6	0.89	0.77	0.66	0.09	0.73	0.61	0.48	0.08
		4.2	Measurement	identify time to the hour	4	0.90	0.76	0.67	0.10	0.66	0.62	0.58	0.03
		2.1	Algebra	recognize and complete a four-object/step pattern	6	0.84	0.75	0.66	0.08	0.77	0.60	0.31	0.16
		1.2	Numbers and Operations	solve double-digit addition without regrouping and single-digit subtraction	5	0.77	0.72	0.66	0.04	0.64	0.54	0.46	0.07
	4.3	Measurement	tell time to the half hour	1	1.00	1.00	1.00	–	0.10	0.10	0.10	–	
	2.1	Algebra	recognize and complete a pattern	8	0.83	0.77	0.69	0.04	0.73	0.63	0.56	0.05	
	6	5.1	Data Analysis and Probability	collect, display and read data using appropriate graphs (pictorial, bar and l...	5	0.87	0.77	0.63	0.11	0.69	0.58	0.47	0.08
4.1		Measurement	determine perimeter or area of an object	1	0.74	0.74	0.74	–	0.54	0.54	0.54	–	
1.2		Numbers and Operations	solve two-digit numbers addition with and without regrouping and two-digit su...	5	0.81	0.72	0.53	0.11	0.65	0.54	0.46	0.08	
1.1		Numbers and Operations	recognize whole numbers to 60 and fractional parts 1/4 and 1/3	4	0.77	0.58	0.49	0.13	0.56	0.41	0.31	0.11	
3.1		Geometry	recognize and replicate right and obtuse angles	6	0.78	0.54	0.29	0.17	0.65	0.47	0.36	0.12	
4.2	Measurement	use a ruler to measure length in inches	1	0.52	0.52	0.52	–	0.60	0.60	0.60	–		

Table 28
Standards Level Statistics, Ordered by Mean Difficulty (*P*-value) for Mathematics (continued)

Content	Grade	Standard		Subskill Description	No. Items	<i>P</i> -value				Point Biserial			
		Number	Description			High	Mean	Low	SD	High	Mean	Low	SD
MA	7	4.1	Measurement	determine the volume of an object using non-standard measurement	2	0.92	0.90	0.89	0.02	0.49	0.49	0.48	0.01
		5.1	Data Analysis and Probability	organize given data by category, frequency, and range	4	0.92	0.79	0.64	0.14	0.63	0.54	0.50	0.06
		2.1	Algebra	recognize and complete counting patterns	4	0.87	0.77	0.66	0.12	0.64	0.57	0.53	0.05
		4.3	Measurement	tell time to the nearest five-minute intervals	2	0.76	0.74	0.73	0.02	0.50	0.44	0.39	0.08
		2.2	Algebra	given two whole numbers identify which is solve two-digit addition and subtract with and without regrouping and single-...	6	0.90	0.74	0.53	0.16	0.63	0.55	0.45	0.07
		1.2	Numbers and Operations	measure length with a customary ruler and yardstick	3	0.79	0.68	0.45	0.19	0.56	0.48	0.35	0.11
		4.2	Measurement	recognize and replicate angles: right, acute, obtuse	1	0.66	0.66	0.66	–	0.66	0.66	0.66	–
	3.1	Geometry	recognize whole numbers to 100 and the difference among 1/2, 1/4 and 1/3	5	0.90	0.60	0.31	0.21	0.55	0.50	0.43	0.05	
	1.1	Numbers and Operations	recognize numbers to 100 including fractional halves, fourths, tenths and the...	4	0.75	0.50	0.26	0.23	0.48	0.32	0.15	0.18	
	8	1.1	Numbers and Operations	identify angles and lines in the environment	4	0.90	0.87	0.85	0.02	0.49	0.47	0.41	0.03
		3.1	Geometry	apply various strategies and operations to solve practical problems involving...	7	0.90	0.78	0.62	0.11	0.52	0.42	0.31	0.09
		1.2	Numbers and Operations	given fractions one-half, one-third, one-fourth, and decimal .5, .25, .75 ide...	2	0.79	0.74	0.68	0.08	0.56	0.52	0.48	0.06
		2.2	Algebra	solve problems to determine possible combinations	6	0.70	0.63	0.55	0.06	0.50	0.42	0.35	0.05
		5.1	Data Analysis and Probability	recognize and extend mathematical patterns	6	0.75	0.59	0.39	0.12	0.54	0.41	0.25	0.13
2.1		Algebra	apply the concepts of area, perimeter and time to real-life situations	6	0.83	0.58	0.51	0.12	0.65	0.61	0.52	0.05	
4.1		Measurement		7	0.92	0.57	0.31	0.26	0.55	0.32	0.13	0.16	

Table 28
Standards Level Statistics, Ordered by Mean Difficulty (*P*-value) for Mathematics (continued)

Content	Grade	Standard		No. Items	<i>P</i> -value				Point Biserial				
		Number	Description		Subskill Description	High	Mean	Low	SD	High	Mean	Low	SD
MA	11	5.1	Data Analysis and Probability	collect, organize and utilize numerical information and data	5	0.88	0.80	0.66	0.10	0.59	0.55	0.51	0.03
		3.1	Geometry	use spatial relationships (geometric shapes, solve practical problems involving length, weight and capacity	5	0.90	0.79	0.65	0.10	0.62	0.53	0.48	0.06
		4.1	Measurement	use algebraic symbols (<,>,$=$) to compare two sets	4	0.86	0.75	0.61	0.11	0.65	0.47	0.37	0.12
		2.1	Algebra	use a graph to represent relations in numbers	2	0.52	0.50	0.48	0.03	0.45	0.42	0.39	0.04
		2.2	Algebra	solve problems with whole numbers, fractions and decimals	5	0.73	0.49	0.43	0.13	0.73	0.66	0.58	0.06
		1.1	Numbers and Operations		9	0.68	0.49	0.31	0.13	0.67	0.53	0.41	0.11

Table 29
Standards Level Statistics, Ordered by Mean Difficulty (*P*-value) for Reading/Language Arts

Content	Grade	Standard		Subskill Description	No. Items	<i>P</i> -value				Point Biserial			
		Number	Description			High	Mean	Low	SD	High	Mean	Low	SD
RLA	3	1.1	Reading	categorize pictures that represent words or objects	9	0.93	0.77	0.52	0.13	0.68	0.60	0.45	0.08
		2.1	Writing	copy labels for picture and objects	2	0.81	0.76	0.71	0.07	0.78	0.76	0.75	0.02
		2.2	Writing	recognize that proper names begin with capital letters	5	0.80	0.75	0.70	0.04	0.57	0.47	0.35	0.08
		3.1	Listening/ Speaking/ Viewing	respond to questions about recent experiences	6	0.92	0.73	0.53	0.15	0.69	0.63	0.57	0.04
		1.2	Reading	recall an event from a story	4	0.74	0.71	0.62	0.06	0.62	0.59	0.53	0.04
	4	3.1	Listening/ Speaking/ Viewing	listen to and respond to information	7	0.93	0.80	0.69	0.10	0.65	0.56	0.42	0.08
		1.1	Reading	recognize descriptive vocabulary words	10	0.93	0.79	0.55	0.14	0.68	0.57	0.39	0.09
		2.1	Writing	copy personal information	3	0.83	0.79	0.77	0.03	0.77	0.72	0.67	0.05
		2.2	Writing	create a picture/word sentence with a period at the end	1	0.65	0.65	0.65	–	0.39	0.39	0.39	–
		3.1	Listening/ Speaking/ Viewing	engage in a conversation with a familiar person	3	0.87	0.82	0.78	0.05	0.64	0.63	0.62	0.01
	5	2.2	Writing	apply information found in basic reference materials	4	0.91	0.82	0.74	0.07	0.60	0.55	0.49	0.05
		2.1	Writing	write a simple sentence using initial capitalization and ending punctuation	3	0.93	0.80	0.71	0.11	0.61	0.55	0.50	0.06
		1.2	Reading	identify main character from text or story	3	0.78	0.70	0.61	0.09	0.69	0.61	0.52	0.09
		1.3	Reading	summarize a simple story	7	0.83	0.69	0.47	0.15	0.70	0.62	0.48	0.09
		1.1	Reading	use the root word to identify a new word	6	0.88	0.64	0.44	0.19	0.67	0.51	0.24	0.18
	6	1.1	Reading	identify vocabulary words from a variety of sources	6	0.89	0.81	0.73	0.07	0.68	0.62	0.48	0.08
		1.2	Reading	answer questions related to the main idea of a text	6	0.90	0.80	0.55	0.13	0.71	0.67	0.63	0.04
2.2		Writing	select and use the correct resource material to complete a task	10	0.89	0.78	0.67	0.08	0.73	0.63	0.51	0.06	
3.1		Listening/ Speaking/ Viewing	engage in communication with familiar and unfamiliar people	5	0.95	0.73	0.59	0.13	0.70	0.60	0.53	0.06	
2.1		Writing	extend a sentence using descriptive words and correct capitalization and punc.	2	0.75	0.70	0.64	0.08	0.62	0.50	0.37	0.17	

Table 29
Standards Level Statistics, Ordered by Mean Difficulty (*P*-value) for Reading/Language Arts (continued)

Content	Grade	Standard		Subskill Description	No. Items	<i>P</i> -value				Point Biserial			
		Number	Description			High	Mean	Low	SD	High	Mean	Low	SD
RLA	7	1.1	Reading	recognize and comprehend frequently used sight or common words	9	0.95	0.86	0.73	0.06	0.69	0.63	0.56	0.04
		2.2	Writing	compare two similar resource materials and determine which is most appropriate	5	0.91	0.81	0.68	0.10	0.59	0.50	0.39	0.07
		1.2	Reading	identify three elements of a story	10	0.91	0.80	0.53	0.10	0.72	0.61	0.39	0.10
		3.1	Listening/ Speaking/ Viewing	listen and communicate in order to obtain information or perform a task	7	0.90	0.71	0.47	0.17	0.69	0.59	0.49	0.09
		2.1	Writing	write two related sentences	6	0.82	0.69	0.56	0.12	0.63	0.55	0.50	0.04
	8	1.1	Reading	use a variety of resources to identify meaning of vocabulary words	4	0.95	0.89	0.81	0.06	0.57	0.50	0.46	0.05
		1.2	Reading	identify details from text needed to make decisions	11	0.94	0.83	0.64	0.10	0.64	0.53	0.36	0.08
		3.1	Listening/ Speaking/ Viewing	listen to and communicate with a variety of speakers in order to answer question	4	0.90	0.63	0.45	0.19	0.63	0.52	0.33	0.13
		2.1	Writing	using a resource, compose a paragraph with three related sentences	10	0.76	0.57	0.30	0.16	0.73	0.50	0.22	0.17
	11	1.2	Reading	comprehend and infer meaning from literary	6	0.91	0.84	0.78	0.06	0.68	0.61	0.54	0.05
		1.1	Reading	determine word meaning through a variety of strategies	9	0.90	0.83	0.70	0.06	0.79	0.67	0.52	0.09
		3.1	Listening/ Speaking/ Viewing	listen in order to communicate effectively in different ways and different pu...	4	0.93	0.79	0.63	0.14	0.66	0.54	0.39	0.11
		1.3	Reading	apply information from a variety of sources	1	0.76	0.76	0.76	–	0.68	0.68	0.68	–
		2.1	Writing	produce writing for practical uses with correct punctuation and capitalization	6	0.85	0.73	0.60	0.08	0.72	0.62	0.48	0.10

Table 30
Standards Level Statistics, Ordered by Mean Difficulty (*P*-value) for Science

Content	Grade	Standard		No. Items	<i>P</i> -value				Point Biserial				
		Number	Description		Subskill Description	High	Mean	Low	SD	High	Mean	Low	SD
		2.3	Content of Science	compare the effects of different natural events	5	0.93	0.86	0.75	0.08	0.59	0.55	0.44	0.06
	4	2.2	Content of Science	recognize different types of forces of motion	6	0.92	0.85	0.72	0.07	0.69	0.60	0.49	0.07
		2.1	Content of Science	describe characteristics of matter	6	0.93	0.79	0.56	0.15	0.70	0.59	0.44	0.09
		1.1	Nature of Science	apply tools/methods in the investigation of	7	0.91	0.76	0.49	0.18	0.64	0.58	0.43	0.08
		3.1	Application of Science	compare scientific systems/patterns	6	0.80	0.65	0.44	0.13	0.55	0.45	0.36	0.07
	6	2.2	Content of Science	classify the properties and processes of energy/matter	4	0.83	0.79	0.70	0.06	0.67	0.53	0.43	0.10
		3.1	Application of Science	describe changes in systems	6	0.86	0.78	0.57	0.11	0.69	0.62	0.52	0.06
		1.2	Nature of Science	identify careers in and contributions of science	5	0.91	0.78	0.44	0.19	0.64	0.57	0.38	0.11
SC		2.3	Content of Science	explain the relationships between the earth, moon/sun	6	0.92	0.76	0.62	0.13	0.66	0.54	0.34	0.11
		2.1	Content of Science	describe the cycles in nature	6	0.87	0.76	0.70	0.08	0.60	0.53	0.40	0.07
	1.1	Nature of Science	apply scientific processes and skills	6	0.88	0.69	0.41	0.21	0.65	0.51	0.29	0.14	
	11	1.1	Nature of Science	historical scientific innovations	6	0.87	0.82	0.75	0.05	0.62	0.57	0.49	0.06
		2.1	Content of Science	classify examples of matter	6	0.85	0.75	0.53	0.12	0.69	0.56	0.35	0.13
		2.3	Content of Science	compare substances by mass, temperature or concentration	6	0.84	0.73	0.53	0.12	0.64	0.50	0.29	0.13
		3.1	Application of Science	impact of technology on the environment	6	0.82	0.72	0.45	0.14	0.68	0.56	0.33	0.12
		1.2	Nature of Science	safely use laboratory equipment	5	0.77	0.67	0.54	0.09	0.64	0.56	0.50	0.06
		2.2	Content of Science	distinguish between chemical and physical changes	4	0.74	0.63	0.50	0.11	0.52	0.41	0.30	0.09

Table 31
Total Group Statistics, Reliability and Error

Content	Grade	Sample Size	Raw Score		N Students at Maximum Score	N Students at Minimum Score	Coefficient Alpha	Standard Error of Measurement
			Mean	SD				
MA	3	249	72.21	22.98	5	0	0.93	6.07
	4	281	76.09	23.18	17	0	0.93	5.95
	5	276	94.13	26.70	28	1	0.94	6.28
	6	263	68.29	20.87	5	0	0.91	6.36
	7	261	65.70	18.55	4	0	0.91	5.66
	8	263	75.56	20.75	2	0	0.89	6.90
	11	267	57.42	21.16	4	0	0.93	5.70
RLA	3	248	62.56	19.11	15	0	0.93	5.21
	4	281	56.48	15.25	37	0	0.90	4.89
	5	276	56.58	17.20	14	1	0.91	5.08
	6	263	69.10	20.38	31	1	0.93	5.30
	7	261	90.28	24.66	9	0	0.95	5.72
	8	262	72.36	20.02	5	0	0.89	6.71
	11	265	66.60	18.95	47	1	0.95	4.40
SC	4	281	75.96	20.02	16	0	0.89	6.57
	6	264	84.10	22.63	6	1	0.90	7.00
	11	265	82.57	23.93	10	1	0.93	6.21

Table 32
WV APTA Cut Scores and Percentage of Students at Each Proficiency Level

Content	Grade	N	Cut Scores			Associated Impact Data-2009				
			Partial Mastery	Mastery	Above Mastery	Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above
MA	3	249	11	63	83	1%	29%	26%	43%	69%
	4	281	22	60	82	1%	22%	23%	54%	77%
	5	276	24	62	84	1%	15%	12%	72%	84%
	6	263	24	59	78	1%	29%	30%	40%	70%
	7	262	27	56	73	3%	26%	29%	43%	71%
	8	263	31	61	82	2%	22%	33%	42%	76%
	11	267	19	42	72	3%	24%	41%	31%	73%
RLA	3	248	23	59	75	3%	30%	28%	39%	67%
	4	281	23	54	69	3%	27%	41%	29%	69%
	5	276	23	44	62	5%	16%	28%	50%	78%
	6	263	29	66	76	7%	24%	17%	52%	69%
	7	262	29	76	98	2%	18%	26%	54%	80%
	8	262	27	57	78	2%	18%	30%	49%	79%
SC	11	265	22	55	75	2%	21%	26%	51%	77%
	4	281	43	72	89	9%	23%	36%	32%	68%
	6	264	46	82	101	10%	26%	38%	26%	64%
	11	265	54	78	102	15%	19%	39%	26%	65%

Table 33
Classification Consistency and Accuracy

Content	Grade	Consistency				Accuracy		
		Prob of Correct Classification (PC)	Prob of Correct Classification By Chance (Chance)	Kappa	Prob of Misclassification (PM)	Prob of Accuracy (PA)	Prob of False Positive Error (FP)	Prob of False Negative Error (FN)
MA	3	0.74	0.34	0.61	0.26	0.81	0.09	0.10
	4	0.77	0.38	0.63	0.23	0.83	0.07	0.09
	5	0.83	0.55	0.63	0.17	0.88	0.05	0.07
	6	0.74	0.33	0.62	0.26	0.82	0.08	0.10
	7	0.73	0.33	0.60	0.27	0.76	0.20	0.04
	8	0.74	0.34	0.61	0.26	0.81	0.09	0.09
	11	0.74	0.33	0.60	0.26	0.81	0.08	0.11
RLA	3	0.67	0.30	0.53	0.33	0.76	0.10	0.13
	4	0.65	0.33	0.48	0.35	0.74	0.14	0.12
	5	0.74	0.35	0.60	0.26	0.81	0.08	0.11
	6	0.74	0.37	0.59	0.26	0.81	0.08	0.11
	7	0.74	0.38	0.58	0.26	0.81	0.08	0.10
	8	0.75	0.36	0.61	0.25	0.82	0.08	0.10
	11	0.72	0.36	0.57	0.28	0.80	0.08	0.11
SC	4	0.68	0.29	0.55	0.32	0.77	0.11	0.12
	6	0.67	0.29	0.54	0.33	0.77	0.12	0.11
	11	0.67	0.28	0.54	0.33	0.76	0.11	0.13

Table 34
Raw Score Frequency Distributions for Mathematics

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	1	0.40	1	0.40
		3	1	0.40	2	0.80
		4	0	0	2	0.80
		5	0	0	2	0.80
		6	0	0	2	0.80
		7	0	0	2	0.80
		8	0	0	2	0.80
		9	0	0	2	0.80
		10	1	0.40	3	1.20
		11	1	0.40	4	1.61
		12	0	0	4	1.61
		13	1	0.40	5	2.01
		14	0	0	5	2.01
		15	1	0.40	6	2.41
		16	0	0	6	2.41
		17	0	0	6	2.41
		18	0	0	6	2.41
		19	0	0	6	2.41
		20	0	0	6	2.41
		21	0	0	6	2.41
		22	0	0	6	2.41
MA	3	23	1	0.40	7	2.81
		24	0	0	7	2.81
		25	0	0	7	2.81
		26	0	0	7	2.81
		27	0	0	7	2.81
		28	0	0	7	2.81
		29	1	0.40	8	3.21
		30	2	0.80	10	4.02
		31	3	1.20	13	5.22
		32	2	0.80	15	6.02
		33	3	1.20	18	7.23
		34	3	1.20	21	8.43
		35	2	0.80	23	9.24
		36	5	2.01	28	11.24
		37	2	0.80	30	12.05
		38	0	0	30	12.05
		39	0	0	30	12.05
		40	0	0	30	12.05
		41	1	0.40	31	12.45
		42	4	1.61	35	14.06
		43	1	0.40	36	14.46
		44	1	0.40	37	14.86
		45	1	0.40	38	15.26

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	1	0.40	39	15.66
		47	1	0.40	40	16.06
		48	1	0.40	41	16.47
		49	3	1.20	44	17.67
		50	0	0	44	17.67
		51	1	0.40	45	18.07
		52	3	1.20	48	19.28
		53	1	0.40	49	19.68
		54	5	2.01	54	21.69
		55	3	1.20	57	22.89
		56	5	2.01	62	24.90
		57	4	1.61	66	26.51
		58	3	1.20	69	27.71
		59	2	0.80	71	28.51
		60	3	1.20	74	29.72
		61	1	0.40	75	30.12
		62	1	0.40	76	30.52
		63	4	1.61	80	32.13
		64	1	0.40	81	32.53
		65	1	0.40	82	32.93
		66	6	2.41	88	35.34
		67	2	0.80	90	36.14
MA	3	68	3	1.20	93	37.35
		69	3	1.20	96	38.55
		70	5	2.01	101	40.56
		71	4	1.61	105	42.17
		72	4	1.61	109	43.78
		73	3	1.20	112	44.98
		74	3	1.20	115	46.18
		75	6	2.41	121	48.59
		76	0	0	121	48.59
		77	4	1.61	125	50.20
		78	4	1.61	129	51.81
		79	3	1.20	132	53.01
		80	6	2.41	138	55.42
		81	3	1.20	141	56.63
		82	0	0	141	56.63
		83	3	1.20	144	57.83
		84	14	5.62	158	63.45
		85	3	1.20	161	64.66
		86	4	1.61	165	66.27
		87	10	4.02	175	70.28
		88	3	1.20	178	71.49
		89	5	2.01	183	73.49
		90	9	3.61	192	77.11

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		91	0	0	192	77.11
		92	2	0.80	194	77.91
		93	7	2.81	201	80.72
		94	1	0.40	202	81.12
		95	6	2.41	208	83.53
		96	10	4.02	218	87.55
		97	2	0.80	220	88.35
MA	3	98	4	1.61	224	89.96
		99	10	4.02	234	93.98
		100	2	0.80	236	94.78
		101	1	0.40	237	95.18
		102	6	2.41	243	97.59
		103	0	0	243	97.59
		104	1	0.40	244	97.99
		105	5	2.01	249	100

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	0	0	0	0
		3	0	0	0	0
		4	0	0	0	0
		5	0	0	0	0
		6	0	0	0	0
		7	0	0	0	0
		8	0	0	0	0
		9	2	0.71	2	0.71
		10	0	0	2	0.71
		11	0	0	2	0.71
		12	0	0	2	0.71
		13	0	0	2	0.71
		14	0	0	2	0.71
		15	0	0	2	0.71
		16	0	0	2	0.71
		17	1	0.36	3	1.07
		18	0	0	3	1.07
		19	0	0	3	1.07
		20	0	0	3	1.07
		21	0	0	3	1.07
MA	4	22	3	1.07	6	2.14
		23	1	0.36	7	2.49
		24	0	0	7	2.49
		25	0	0	7	2.49
		26	1	0.36	8	2.85
		27	0	0	8	2.85
		28	1	0.36	9	3.20
		29	0	0	9	3.20
		30	2	0.71	11	3.91
		31	2	0.71	13	4.63
		32	5	1.78	18	6.41
		33	8	2.85	26	9.25
		34	3	1.07	29	10.32
		35	0	0	29	10.32
		36	2	0.71	31	11.03
		37	0	0	31	11.03
		38	3	1.07	34	12.10
		39	0	0	34	12.10
		40	0	0	34	12.10
		41	2	0.71	36	12.81
		42	1	0.36	37	13.17
		43	2	0.71	39	13.88
		44	0	0	39	13.88
		45	0	0	39	13.88

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	0	0	39	13.88
		47	5	1.78	44	15.66
		48	1	0.36	45	16.01
		49	1	0.36	46	16.37
		50	3	1.07	49	17.44
		51	0	0	49	17.44
		52	0	0	49	17.44
		53	1	0.36	50	17.79
		54	3	1.07	53	18.86
		55	2	0.71	55	19.57
		56	3	1.07	58	20.64
		57	2	0.71	60	21.35
		58	3	1.07	63	22.42
		59	2	0.71	65	23.13
		60	4	1.42	69	24.56
		61	1	0.36	70	24.91
		62	3	1.07	73	25.98
		63	2	0.71	75	26.69
		64	3	1.07	78	27.76
		65	4	1.42	82	29.18
		66	2	0.71	84	29.89
		67	0	0	84	29.89
MA	4	68	2	0.71	86	30.60
		69	3	1.07	89	31.67
		70	3	1.07	92	32.74
		71	4	1.42	96	34.16
		72	8	2.85	104	37.01
		73	1	0.36	105	37.37
		74	0	0	105	37.37
		75	6	2.14	111	39.50
		76	2	0.71	113	40.21
		77	3	1.07	116	41.28
		78	3	1.07	119	42.35
		79	2	0.71	121	43.06
		80	2	0.71	123	43.77
		81	7	2.49	130	46.26
		82	3	1.07	133	47.33
		83	4	1.42	137	48.75
		84	9	3.20	146	51.96
		85	0	0	146	51.96
		86	4	1.42	150	53.38
		87	9	3.20	159	56.58
		88	2	0.71	161	57.30
		89	4	1.42	165	58.72
		90	15	5.34	180	64.06

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
MA	4	91	6	2.14	186	66.19
		92	4	1.42	190	67.62
		93	14	4.98	204	72.60
		94	1	0.36	205	72.95
		95	6	2.14	211	75.09
		96	21	7.47	232	82.56
		97	2	0.71	234	83.27
		98	0	0	234	83.27
		99	26	9.25	260	92.53
		100	3	1.07	263	93.59
		101	1	0.36	264	93.95
		102	17	6.05	281	100

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	1	0.36	1	0.36
		1	0	0	1	0.36
		2	0	0	1	0.36
		3	0	0	1	0.36
		4	0	0	1	0.36
		5	0	0	1	0.36
		6	0	0	1	0.36
		7	0	0	1	0.36
		8	0	0	1	0.36
		9	0	0	1	0.36
		10	0	0	1	0.36
		11	0	0	1	0.36
		12	0	0	1	0.36
		13	0	0	1	0.36
		14	0	0	1	0.36
		15	0	0	1	0.36
		16	0	0	1	0.36
		17	0	0	1	0.36
		18	1	0.36	2	0.72
		19	0	0	2	0.72
		20	0	0	2	0.72
		21	0	0	2	0.72
MA	5	22	0	0	2	0.72
		23	0	0	2	0.72
		24	0	0	2	0.72
		25	0	0	2	0.72
		26	1	0.36	3	1.09
		27	2	0.72	5	1.81
		28	0	0	5	1.81
		29	0	0	5	1.81
		30	1	0.36	6	2.17
		31	0	0	6	2.17
		32	0	0	6	2.17
		33	0	0	6	2.17
		34	1	0.36	7	2.54
		35	0	0	7	2.54
		36	1	0.36	8	2.90
		37	3	1.09	11	3.99
		38	1	0.36	12	4.35
		39	4	1.45	16	5.80
		40	1	0.36	17	6.16
		41	1	0.36	18	6.52
		42	4	1.45	22	7.97
		43	3	1.09	25	9.06
		44	0	0	25	9.06
		45	1	0.36	26	9.42

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	2	0.72	28	10.14
		47	0	0	28	10.14
		48	1	0.36	29	10.51
		49	1	0.36	30	10.87
		50	0	0	30	10.87
		51	0	0	30	10.87
		52	4	1.45	34	12.32
		53	0	0	34	12.32
		54	1	0.36	35	12.68
		55	1	0.36	36	13.04
		56	1	0.36	37	13.41
		57	2	0.72	39	14.13
		58	2	0.72	41	14.86
		59	1	0.36	42	15.22
		60	1	0.36	43	15.58
		61	1	0.36	44	15.94
		62	0	0	44	15.94
		63	1	0.36	45	16.30
		64	3	1.09	48	17.39
		65	1	0.36	49	17.75
		66	0	0	49	17.75
		67	2	0.72	51	18.48
MA	5	68	1	0.36	52	18.84
		69	1	0.36	53	19.20
		70	1	0.36	54	19.57
		71	0	0	54	19.57
		72	3	1.09	57	20.65
		73	2	0.72	59	21.38
		74	3	1.09	62	22.46
		75	1	0.36	63	22.83
		76	0	0	63	22.83
		77	0	0	63	22.83
		78	2	0.72	65	23.55
		79	1	0.36	66	23.91
		80	2	0.72	68	24.64
		81	4	1.45	72	26.09
		82	1	0.36	73	26.45
		83	4	1.45	77	27.90
		84	6	2.17	83	30.07
		85	2	0.72	85	30.80
		86	0	0	85	30.80
		87	0	0	85	30.80
		88	2	0.72	87	31.52
		89	2	0.72	89	32.25
		90	2	0.72	91	32.97

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		91	2	0.72	93	33.70
		92	1	0.36	94	34.06
		93	3	1.09	97	35.14
		94	2	0.72	99	35.87
		95	4	1.45	103	37.32
		96	2	0.72	105	38.04
		97	1	0.36	106	38.41
		98	4	1.45	110	39.86
		99	3	1.09	113	40.94
		100	1	0.36	114	41.30
		101	1	0.36	115	41.67
		102	7	2.54	122	44.20
		103	6	2.17	128	46.38
		104	5	1.81	133	48.19
MA	5	105	6	2.17	139	50.36
		106	2	0.72	141	51.09
		107	10	3.62	151	54.71
		108	12	4.35	163	59.06
		109	3	1.09	166	60.14
		110	8	2.90	174	63.04
		111	13	4.71	187	67.75
		112	1	0.36	188	68.12
		113	7	2.54	195	70.65
		114	19	6.88	214	77.54
		115	2	0.72	216	78.26
		116	5	1.81	221	80.07
		117	21	7.61	242	87.68
		118	0	0	242	87.68
		119	6	2.17	248	89.86
		120	28	10.14	276	100

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	0	0	0	0
		3	0	0	0	0
		4	0	0	0	0
		5	0	0	0	0
		6	0	0	0	0
		7	0	0	0	0
		8	0	0	0	0
		9	0	0	0	0
		10	0	0	0	0
		11	0	0	0	0
		12	0	0	0	0
		13	0	0	0	0
		14	0	0	0	0
		15	1	0.38	1	0.38
		16	0	0	1	0.38
		17	0	0	1	0.38
		18	1	0.38	2	0.76
		19	0	0	2	0.76
		20	0	0	2	0.76
		21	0	0	2	0.76
		22	0	0	2	0.76
MA	6	23	0	0	2	0.76
		24	0	0	2	0.76
		25	3	1.14	5	1.90
		26	1	0.38	6	2.28
		27	1	0.38	7	2.66
		28	1	0.38	8	3.04
		29	2	0.76	10	3.80
		30	2	0.76	12	4.56
		31	3	1.14	15	5.70
		32	4	1.52	19	7.22
		33	4	1.52	23	8.75
		34	7	2.66	30	11.41
		35	4	1.52	34	12.93
		36	0	0	34	12.93
		37	1	0.38	35	13.31
		38	3	1.14	38	14.45
		39	3	1.14	41	15.59
		40	1	0.38	42	15.97
		41	1	0.38	43	16.35
		42	3	1.14	46	17.49
		43	1	0.38	47	17.87
		44	2	0.76	49	18.63
		45	0	0	49	18.63

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	1	0.38	50	19.01
		47	2	0.76	52	19.77
		48	4	1.52	56	21.29
		49	0	0	56	21.29
		50	1	0.38	57	21.67
		51	3	1.14	60	22.81
		52	1	0.38	61	23.19
		53	3	1.14	64	24.33
		54	3	1.14	67	25.48
		55	3	1.14	70	26.62
		56	2	0.76	72	27.38
		57	4	1.52	76	28.90
		58	2	0.76	78	29.66
		59	0	0	78	29.66
		60	6	2.28	84	31.94
		61	1	0.38	85	32.32
		62	5	1.90	90	34.22
		63	2	0.76	92	34.98
		64	3	1.14	95	36.12
		65	4	1.52	99	37.64
		66	8	3.04	107	40.68
		67	1	0.38	108	41.06
MA	6	68	3	1.14	111	42.21
		69	2	0.76	113	42.97
		70	3	1.14	116	44.11
		71	7	2.66	123	46.77
		72	6	2.28	129	49.05
		73	1	0.38	130	49.43
		74	5	1.90	135	51.33
		75	5	1.90	140	53.23
		76	8	3.04	148	56.27
		77	10	3.80	158	60.08
		78	5	1.90	163	61.98
		79	3	1.14	166	63.12
		80	3	1.14	169	64.26
		81	11	4.18	180	68.44
		82	1	0.38	181	68.82
		83	7	2.66	188	71.48
		84	12	4.56	200	76.05
		85	0	0	200	76.05
		86	6	2.28	206	78.33
		87	9	3.42	215	81.75
		88	2	0.76	217	82.51
		89	5	1.90	222	84.41
		90	6	2.28	228	86.69

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
MA	6	91	2	0.76	230	87.45
		92	6	2.28	236	89.73
		93	7	2.66	243	92.40
		94	0	0	243	92.40
		95	5	1.90	248	94.30
		96	9	3.42	257	97.72
		97	1	0.38	258	98.10
		98	0	0	258	98.10
		99	5	1.90	263	100

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	0	0	0	0
		3	1	0.38	1	0.38
		4	0	0	1	0.38
		5	0	0	1	0.38
		6	0	0	1	0.38
		7	0	0	1	0.38
		8	0	0	1	0.38
		9	0	0	1	0.38
		10	0	0	1	0.38
		11	0	0	1	0.38
		12	0	0	1	0.38
		13	0	0	1	0.38
		14	0	0	1	0.38
		15	0	0	1	0.38
		16	1	0.38	2	0.77
		17	0	0	2	0.77
		18	0	0	2	0.77
		19	0	0	2	0.77
		20	0	0	2	0.77
		21	2	0.77	4	1.53
MA	7	22	0	0	4	1.53
		23	1	0.38	5	1.92
		24	1	0.38	6	2.30
		25	1	0.38	7	2.68
		26	1	0.38	8	3.07
		27	0	0	8	3.07
		28	0	0	8	3.07
		29	0	0	8	3.07
		30	3	1.15	11	4.21
		31	3	1.15	14	5.36
		32	1	0.38	15	5.75
		33	5	1.92	20	7.66
		34	2	0.77	22	8.43
		35	3	1.15	25	9.58
		36	1	0.38	26	9.96
		37	3	1.15	29	11.11
		38	1	0.38	30	11.49
		39	3	1.15	33	12.64
		40	0	0	33	12.64
		41	1	0.38	34	13.03
		42	1	0.38	35	13.41
		43	0	0	35	13.41
		44	3	1.15	38	14.56
		45	4	1.53	42	16.09

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	2	0.77	44	16.86
		47	0	0	44	16.86
		48	7	2.68	51	19.54
		49	0	0	51	19.54
		50	2	0.77	53	20.31
		51	8	3.07	61	23.37
		52	4	1.53	65	24.90
		53	3	1.15	68	26.05
		54	7	2.68	75	28.74
		55	0	0	75	28.74
		56	2	0.77	77	29.50
		57	6	2.30	83	31.80
		58	1	0.38	84	32.18
		59	2	0.77	86	32.95
		60	5	1.92	91	34.87
		61	0	0	91	34.87
		62	0	0	91	34.87
		63	8	3.07	99	37.93
		64	2	0.77	101	38.70
		65	1	0.38	102	39.08
		66	13	4.98	115	44.06
		67	4	1.53	119	45.59
MA	7	68	1	0.38	120	45.98
		69	11	4.21	131	50.19
		70	1	0.38	132	50.57
		71	3	1.15	135	51.72
		72	15	5.75	150	57.47
		73	2	0.77	152	58.24
		74	1	0.38	153	58.62
		75	13	4.98	166	63.60
		76	3	1.15	169	64.75
		77	4	1.53	173	66.28
		78	19	7.28	192	73.56
		79	2	0.77	194	74.33
		80	7	2.68	201	77.01
		81	15	5.75	216	82.76
		82	2	0.77	218	83.52
		83	0	0	218	83.52
		84	10	3.83	228	87.36
		85	1	0.38	229	87.74
		86	0	0	229	87.74
		87	12	4.60	241	92.34
		88	2	0.77	243	93.10
		89	1	0.38	244	93.49
		90	7	2.68	251	96.17

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
MA	7	91	1	0.38	252	96.55
		92	1	0.38	253	96.93
		93	3	1.15	256	98.08
		94	0	0	256	98.08
		95	1	0.38	257	98.47
		96	4	1.53	261	100

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	0	0	0	0
		3	0	0	0	0
		4	0	0	0	0
		5	0	0	0	0
		6	0	0	0	0
		7	0	0	0	0
		8	0	0	0	0
		9	0	0	0	0
		10	0	0	0	0
		11	0	0	0	0
		12	0	0	0	0
		13	0	0	0	0
		14	0	0	0	0
		15	0	0	0	0
		16	0	0	0	0
		17	0	0	0	0
		18	0	0	0	0
		19	1	0.38	1	0.38
		20	0	0	1	0.38
		21	0	0	1	0.38
MA	8	22	0	0	1	0.38
		23	0	0	1	0.38
		24	0	0	1	0.38
		25	0	0	1	0.38
		26	0	0	1	0.38
		27	2	0.76	3	1.14
		28	1	0.38	4	1.52
		29	0	0	4	1.52
		30	1	0.38	5	1.90
		31	0	0	5	1.90
		32	0	0	5	1.90
		33	0	0	5	1.90
		34	1	0.38	6	2.28
		35	1	0.38	7	2.66
		36	2	0.76	9	3.42
		37	2	0.76	11	4.18
		38	5	1.90	16	6.08
		39	2	0.76	18	6.84
		40	2	0.76	20	7.60
		41	0	0	20	7.60
		42	3	1.14	23	8.75
		43	1	0.38	24	9.13
		44	0	0	24	9.13
		45	2	0.76	26	9.89

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	2	0.76	28	10.65
		47	1	0.38	29	11.03
		48	0	0	29	11.03
		49	3	1.14	32	12.17
		50	3	1.14	35	13.31
		51	4	1.52	39	14.83
		52	1	0.38	40	15.21
		53	0	0	40	15.21
		54	3	1.14	43	16.35
		55	1	0.38	44	16.73
		56	1	0.38	45	17.11
		57	4	1.52	49	18.63
		58	2	0.76	51	19.39
		59	3	1.14	54	20.53
		60	10	3.80	64	24.33
		61	4	1.52	68	25.86
		62	2	0.76	70	26.62
		63	9	3.42	79	30.04
		64	1	0.38	80	30.42
		65	2	0.76	82	31.18
		66	12	4.56	94	35.74
		67	1	0.38	95	36.12
MA	8	68	3	1.14	98	37.26
		69	8	3.04	106	40.30
		70	0	0	106	40.30
		71	1	0.38	107	40.68
		72	6	2.28	113	42.97
		73	0	0	113	42.97
		74	2	0.76	115	43.73
		75	14	5.32	129	49.05
		76	0	0	129	49.05
		77	2	0.76	131	49.81
		78	11	4.18	142	53.99
		79	0	0	142	53.99
		80	2	0.76	144	54.75
		81	8	3.04	152	57.79
		82	1	0.38	153	58.17
		83	2	0.76	155	58.94
		84	9	3.42	164	62.36
		85	0	0	164	62.36
		86	1	0.38	165	62.74
		87	9	3.42	174	66.16
		88	3	1.14	177	67.30
		89	6	2.28	183	69.58
		90	11	4.18	194	73.76

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		91	3	1.14	197	74.90
		92	4	1.52	201	76.43
		93	9	3.42	210	79.85
		94	1	0.38	211	80.23
		95	3	1.14	214	81.37
		96	9	3.42	223	84.79
		97	1	0.38	224	85.17
		98	1	0.38	225	85.55
		99	5	1.90	230	87.45
		100	1	0.38	231	87.83
		101	2	0.76	233	88.59
MA	8	102	5	1.90	238	90.49
		103	2	0.76	240	91.25
		104	1	0.38	241	91.63
		105	8	3.04	249	94.68
		106	2	0.76	251	95.44
		107	0	0	251	95.44
		108	5	1.90	256	97.34
		109	1	0.38	257	97.72
		110	0	0	257	97.72
		111	3	1.14	260	98.86
		112	1	0.38	261	99.24
		113	0	0	261	99.24
		114	2	0.76	263	100

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	0	0	0	0
		3	0	0	0	0
		4	0	0	0	0
		5	0	0	0	0
		6	1	0.37	1	0.37
		7	0	0	1	0.37
		8	1	0.37	2	0.75
		9	0	0	2	0.75
		10	0	0	2	0.75
		11	1	0.37	3	1.12
		12	0	0	3	1.12
		13	1	0.37	4	1.50
		14	0	0	4	1.50
		15	0	0	4	1.50
		16	0	0	4	1.50
		17	1	0.37	5	1.87
		18	3	1.12	8	3.00
		19	0	0	8	3.00
		20	1	0.37	9	3.37
		21	1	0.37	10	3.75
MA	11	22	0	0	10	3.75
		23	0	0	10	3.75
		24	6	2.25	16	5.99
		25	2	0.75	18	6.74
		26	3	1.12	21	7.87
		27	2	0.75	23	8.61
		28	4	1.50	27	10.11
		29	1	0.37	28	10.49
		30	2	0.75	30	11.24
		31	7	2.62	37	13.86
		32	2	0.75	39	14.61
		33	7	2.62	46	17.23
		34	2	0.75	48	17.98
		35	3	1.12	51	19.10
		36	4	1.50	55	20.60
		37	3	1.12	58	21.72
		38	3	1.12	61	22.85
		39	5	1.87	66	24.72
		40	3	1.12	69	25.84
		41	4	1.50	73	27.34
		42	5	1.87	78	29.21
		43	0	0	78	29.21
		44	2	0.75	80	29.96
		45	7	2.62	87	32.58

Table 34
Raw Score Frequency Distributions for Mathematics (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	0	0	87	32.58
		47	5	1.87	92	34.46
		48	9	3.37	101	37.83
		49	1	0.37	102	38.20
		50	2	0.75	104	38.95
		51	4	1.50	108	40.45
		52	1	0.37	109	40.82
		53	0	0	109	40.82
		54	12	4.49	121	45.32
		55	2	0.75	123	46.07
		56	3	1.12	126	47.19
		57	8	3.00	134	50.19
		58	0	0	134	50.19
		59	0	0	134	50.19
		60	8	3.00	142	53.18
		61	1	0.37	143	53.56
		62	4	1.50	147	55.06
		63	8	3.00	155	58.05
		64	0	0	155	58.05
		65	6	2.25	161	60.30
		66	7	2.62	168	62.92
		67	1	0.37	169	63.30
		68	6	2.25	175	65.54
MA	11	69	5	1.87	180	67.42
		70	1	0.37	181	67.79
		71	2	0.75	183	68.54
		72	5	1.87	188	70.41
		73	0	0	188	70.41
		74	6	2.25	194	72.66
		75	4	1.50	198	74.16
		76	0	0	198	74.16
		77	4	1.50	202	75.66
		78	7	2.62	209	78.28
		79	3	1.12	212	79.40
		80	4	1.50	216	80.90
		81	8	3.00	224	83.90
		82	3	1.12	227	85.02
		83	2	0.75	229	85.77
		84	12	4.49	241	90.26
		85	2	0.75	243	91.01
		86	6	2.25	249	93.26
		87	7	2.62	256	95.88
		88	0	0	256	95.88
		89	2	0.75	258	96.63
		90	5	1.87	263	98.50
		91	0	0	263	98.50
		92	0	0	263	98.50
		93	4	1.50	267	100

Table 35
Raw Score Frequency Distributions for Reading/Language Arts

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	1	0.40	1	0.40
		3	0	0	1	0.40
		4	2	0.81	3	1.21
		5	0	0	3	1.21
		6	0	0	3	1.21
		7	0	0	3	1.21
		8	0	0	3	1.21
		9	0	0	3	1.21
		10	0	0	3	1.21
		11	0	0	3	1.21
		12	0	0	3	1.21
		13	1	0.40	4	1.61
		14	1	0.40	5	2.02
		15	0	0	5	2.02
		16	0	0	5	2.02
		17	0	0	5	2.02
		18	0	0	5	2.02
		19	0	0	5	2.02
		20	0	0	5	2.02
		21	2	0.81	7	2.82
RLA	3	22	1	0.40	8	3.23
		23	1	0.40	9	3.63
		24	2	0.81	11	4.44
		25	2	0.81	13	5.24
		26	3	1.21	16	6.45
		27	2	0.81	18	7.26
		28	2	0.81	20	8.06
		29	1	0.40	21	8.47
		30	3	1.21	24	9.68
		31	3	1.21	27	10.89
		32	1	0.40	28	11.29
		33	1	0.40	29	11.69
		34	2	0.81	31	12.50
		35	2	0.81	33	13.31
		36	3	1.21	36	14.52
		37	0	0	36	14.52
		38	2	0.81	38	15.32
		39	1	0.40	39	15.73
		40	2	0.81	41	16.53
		41	0	0	41	16.53
		42	5	2.02	46	18.55
		43	1	0.40	47	18.95
		44	2	0.81	49	19.76
		45	0	0	49	19.76

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	1	0.40	50	20.16
		47	4	1.61	54	21.77
		48	0	0	54	21.77
		49	4	1.61	58	23.39
		50	1	0.40	59	23.79
		51	1	0.40	60	24.19
		52	2	0.81	62	25.00
		53	1	0.40	63	25.40
		54	4	1.61	67	27.02
		55	3	1.21	70	28.23
		56	5	2.02	75	30.24
		57	5	2.02	80	32.26
		58	3	1.21	83	33.47
		59	1	0.40	84	33.87
		60	1	0.40	85	34.27
		61	3	1.21	88	35.48
		62	4	1.61	92	37.10
		63	8	3.23	100	40.32
		64	4	1.61	104	41.94
RLA	3	65	2	0.81	106	42.74
		66	8	3.23	114	45.97
		67	2	0.81	116	46.77
		68	3	1.21	119	47.98
		69	9	3.63	128	51.61
		70	0	0	128	51.61
		71	7	2.82	135	54.44
		72	13	5.24	148	59.68
		73	1	0.40	149	60.08
		74	3	1.21	152	61.29
		75	23	9.27	175	70.56
		76	4	1.61	179	72.18
		77	5	2.02	184	74.19
		78	17	6.85	201	81.05
		79	4	1.61	205	82.66
		80	7	2.82	212	85.48
		81	18	7.26	230	92.74
		82	1	0.40	231	93.15
		83	2	0.81	233	93.95
		84	15	6.05	248	100

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	0	0	0	0
		3	0	0	0	0
		4	1	0.36	1	0.36
		5	0	0	1	0.36
		6	0	0	1	0.36
		7	0	0	1	0.36
		8	0	0	1	0.36
		9	0	0	1	0.36
		10	0	0	1	0.36
		11	0	0	1	0.36
		12	0	0	1	0.36
		13	0	0	1	0.36
		14	0	0	1	0.36
		15	1	0.36	2	0.71
		16	2	0.71	4	1.42
		17	1	0.36	5	1.78
		18	1	0.36	6	2.14
		19	1	0.36	7	2.49
		20	1	0.36	8	2.85
		21	0	0	8	2.85
RLA	4	22	1	0.36	9	3.20
		23	1	0.36	10	3.56
		24	7	2.49	17	6.05
		25	2	0.71	19	6.76
		26	0	0	19	6.76
		27	5	1.78	24	8.54
		28	2	0.71	26	9.25
		29	2	0.71	28	9.96
		30	1	0.36	29	10.32
		31	1	0.36	30	10.68
		32	0	0	30	10.68
		33	0	0	30	10.68
		34	1	0.36	31	11.03
		35	2	0.71	33	11.74
		36	3	1.07	36	12.81
		37	3	1.07	39	13.88
		38	1	0.36	40	14.23
		39	1	0.36	41	14.59
		40	3	1.07	44	15.66
		41	7	2.49	51	18.15
		42	5	1.78	56	19.93
		43	2	0.71	58	20.64
		44	4	1.42	62	22.06
		45	2	0.71	64	22.78

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	2	0.71	66	23.49
		47	5	1.78	71	25.27
		48	1	0.36	72	25.62
		49	2	0.71	74	26.33
		50	2	0.71	76	27.05
		51	4	1.42	80	28.47
		52	2	0.71	82	29.18
		53	4	1.42	86	30.60
		54	4	1.42	90	32.03
		55	4	1.42	94	33.45
		56	5	1.78	99	35.23
		57	14	4.98	113	40.21
		58	6	2.14	119	42.35
RLA	4	59	8	2.85	127	45.20
		60	11	3.91	138	49.11
		61	1	0.36	139	49.47
		62	6	2.14	145	51.60
		63	17	6.05	162	57.65
		64	2	0.71	164	58.36
		65	6	2.14	170	60.50
		66	26	9.25	196	69.75
		67	3	1.07	199	70.82
		68	1	0.36	200	71.17
		69	36	12.81	236	83.99
		70	5	1.78	241	85.77
		71	3	1.07	244	86.83
		72	37	13.17	281	100

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	1	0.36	1	0.36
		1	0	0	1	0.36
		2	0	0	1	0.36
		3	0	0	1	0.36
		4	0	0	1	0.36
		5	0	0	1	0.36
		6	0	0	1	0.36
		7	0	0	1	0.36
		8	0	0	1	0.36
		9	0	0	1	0.36
		10	0	0	1	0.36
		11	0	0	1	0.36
		12	0	0	1	0.36
		13	0	0	1	0.36
		14	2	0.72	3	1.09
		15	0	0	3	1.09
		16	0	0	3	1.09
		17	0	0	3	1.09
		18	0	0	3	1.09
		19	2	0.72	5	1.81
		20	1	0.36	6	2.17
		21	5	1.81	11	3.99
RLA	5	22	4	1.45	15	5.43
		23	6	2.17	21	7.61
		24	2	0.72	23	8.33
		25	2	0.72	25	9.06
		26	1	0.36	26	9.42
		27	0	0	26	9.42
		28	1	0.36	27	9.78
		29	4	1.45	31	11.23
		30	2	0.72	33	11.96
		31	2	0.72	35	12.68
		32	2	0.72	37	13.41
		33	0	0	37	13.41
		34	2	0.72	39	14.13
		35	3	1.09	42	15.22
		36	2	0.72	44	15.94
		37	2	0.72	46	16.67
		38	1	0.36	47	17.03
		39	3	1.09	50	18.12
		40	1	0.36	51	18.48
		41	1	0.36	52	18.84
		42	6	2.17	58	21.01
		43	2	0.72	60	21.74
		44	1	0.36	61	22.10
		45	7	2.54	68	24.64

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	2	0.72	70	25.36
		47	3	1.09	73	26.45
		48	7	2.54	80	28.99
		49	1	0.36	81	29.35
		50	3	1.09	84	30.43
		51	7	2.54	91	32.97
		52	1	0.36	92	33.33
		53	3	1.09	95	34.42
		54	8	2.90	103	37.32
		55	4	1.45	107	38.77
		56	2	0.72	109	39.49
		57	14	5.07	123	44.57
		58	3	1.09	126	45.65
		59	3	1.09	129	46.74
		60	6	2.17	135	48.91
		61	3	1.09	138	50.00
RLA	5	62	5	1.81	143	51.81
		63	18	6.52	161	58.33
		64	1	0.36	162	58.70
		65	0	0	162	58.70
		66	19	6.88	181	65.58
		67	1	0.36	182	65.94
		68	5	1.81	187	67.75
		69	17	6.16	204	73.91
		70	0	0	204	73.91
		71	5	1.81	209	75.72
		72	22	7.97	231	83.70
		73	0	0	231	83.70
		74	3	1.09	234	84.78
		75	25	9.06	259	93.84
		76	0	0	259	93.84
		77	3	1.09	262	94.93
		78	14	5.07	276	100

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	1	0.38	1	0.38
		1	0	0	1	0.38
		2	0	0	1	0.38
		3	0	0	1	0.38
		4	0	0	1	0.38
		5	0	0	1	0.38
		6	0	0	1	0.38
		7	0	0	1	0.38
		8	0	0	1	0.38
		9	0	0	1	0.38
		10	0	0	1	0.38
		11	0	0	1	0.38
		12	1	0.38	2	0.76
		13	0	0	2	0.76
		14	0	0	2	0.76
		15	0	0	2	0.76
		16	0	0	2	0.76
		17	2	0.76	4	1.52
		18	0	0	4	1.52
		19	1	0.38	5	1.90
		20	1	0.38	6	2.28
		21	0	0	6	2.28
RLA	6	22	0	0	6	2.28
		23	0	0	6	2.28
		24	0	0	6	2.28
		25	0	0	6	2.28
		26	1	0.38	7	2.66
		27	2	0.76	9	3.42
		28	9	3.42	18	6.84
		29	1	0.38	19	7.22
		30	3	1.14	22	8.37
		31	0	0	22	8.37
		32	4	1.52	26	9.89
		33	0	0	26	9.89
		34	0	0	26	9.89
		35	1	0.38	27	10.27
		36	1	0.38	28	10.65
		37	2	0.76	30	11.41
		38	1	0.38	31	11.79
		39	5	1.90	36	13.69
		40	3	1.14	39	14.83
		41	0	0	39	14.83
		42	1	0.38	40	15.21
		43	0	0	40	15.21
		44	1	0.38	41	15.59
		45	3	1.14	44	16.73

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	1	0.38	45	17.11
		47	1	0.38	46	17.49
		48	3	1.14	49	18.63
		49	2	0.76	51	19.39
		50	0	0	51	19.39
		51	2	0.76	53	20.15
		52	1	0.38	54	20.53
		53	4	1.52	58	22.05
		54	3	1.14	61	23.19
		55	2	0.76	63	23.95
		56	2	0.76	65	24.71
		57	2	0.76	67	25.48
		58	1	0.38	68	25.86
		59	0	0	68	25.86
		60	3	1.14	71	27.00
		61	2	0.76	73	27.76
		62	2	0.76	75	28.52
		63	3	1.14	78	29.66
		64	0	0	78	29.66
		65	3	1.14	81	30.80
		66	8	3.04	89	33.84
		67	2	0.76	91	34.60
RLA	6	68	4	1.52	95	36.12
		69	9	3.42	104	39.54
		70	3	1.14	107	40.68
		71	2	0.76	109	41.44
		72	8	3.04	117	44.49
		73	1	0.38	118	44.87
		74	0	0	118	44.87
		75	9	3.42	127	48.29
		76	1	0.38	128	48.67
		77	2	0.76	130	49.43
		78	14	5.32	144	54.75
		79	4	1.52	148	56.27
		80	2	0.76	150	57.03
		81	19	7.22	169	64.26
		82	2	0.76	171	65.02
		83	8	3.04	179	68.06
		84	23	8.75	202	76.81
		85	1	0.38	203	77.19
		86	3	1.14	206	78.33
		87	26	9.89	232	88.21
		88	0	0	232	88.21
		89	0	0	232	88.21
		90	31	11.79	263	100

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	2	0.77	2	0.77
		3	0	0	2	0.77
		4	0	0	2	0.77
		5	0	0	2	0.77
		6	0	0	2	0.77
		7	0	0	2	0.77
		8	0	0	2	0.77
		9	0	0	2	0.77
		10	0	0	2	0.77
		11	0	0	2	0.77
		12	0	0	2	0.77
		13	0	0	2	0.77
		14	0	0	2	0.77
		15	0	0	2	0.77
		16	0	0	2	0.77
		17	0	0	2	0.77
		18	0	0	2	0.77
		19	0	0	2	0.77
		20	0	0	2	0.77
		21	0	0	2	0.77
RLA	7	22	1	0.38	3	1.15
		23	1	0.38	4	1.53
		24	0	0	4	1.53
		25	0	0	4	1.53
		26	0	0	4	1.53
		27	1	0.38	5	1.92
		28	0	0	5	1.92
		29	0	0	5	1.92
		30	1	0.38	6	2.30
		31	1	0.38	7	2.68
		32	0	0	7	2.68
		33	2	0.77	9	3.45
		34	1	0.38	10	3.83
		35	2	0.77	12	4.60
		36	1	0.38	13	4.98
		37	1	0.38	14	5.36
		38	2	0.77	16	6.13
		39	0	0	16	6.13
		40	1	0.38	17	6.51
		41	3	1.15	20	7.66
		42	1	0.38	21	8.05
		43	1	0.38	22	8.43
		44	1	0.38	23	8.81
		45	3	1.15	26	9.96

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	0	0	26	9.96
		47	1	0.38	27	10.34
		48	1	0.38	28	10.73
		49	0	0	28	10.73
		50	1	0.38	29	11.11
		51	1	0.38	30	11.49
		52	0	0	30	11.49
		53	0	0	30	11.49
		54	2	0.77	32	12.26
		55	1	0.38	33	12.64
		56	2	0.77	35	13.41
		57	1	0.38	36	13.79
		58	0	0	36	13.79
		59	1	0.38	37	14.18
		60	3	1.15	40	15.33
		61	0	0	40	15.33
		62	0	0	40	15.33
		63	0	0	40	15.33
		64	1	0.38	41	15.71
		65	1	0.38	42	16.09
		66	0	0	42	16.09
		67	2	0.77	44	16.86
RLA	7	68	0	0	44	16.86
		69	2	0.77	46	17.62
		70	0	0	46	17.62
		71	1	0.38	47	18.01
		72	2	0.77	49	18.77
		73	1	0.38	50	19.16
		74	0	0	50	19.16
		75	2	0.77	52	19.92
		76	2	0.77	54	20.69
		77	3	1.15	57	21.84
		78	4	1.53	61	23.37
		79	0	0	61	23.37
		80	2	0.77	63	24.14
		81	6	2.30	69	26.44
		82	2	0.77	71	27.20
		83	2	0.77	73	27.97
		84	6	2.30	79	30.27
		85	1	0.38	80	30.65
		86	3	1.15	83	31.80
		87	4	1.53	87	33.33
		88	1	0.38	88	33.72
		89	2	0.77	90	34.48
		90	5	1.92	95	36.40

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		91	2	0.77	97	37.16
		92	3	1.15	100	38.31
		93	10	3.83	110	42.15
		94	1	0.38	111	42.53
		95	3	1.15	114	43.68
		96	5	1.92	119	45.59
		97	2	0.77	121	46.36
		98	3	1.15	124	47.51
		99	15	5.75	139	53.26
		100	3	1.15	142	54.41
		101	3	1.15	145	55.56
		102	18	6.90	163	62.45
		103	3	1.15	166	63.60
RLA	7	104	3	1.15	169	64.75
		105	10	3.83	179	68.58
		106	1	0.38	180	68.97
		107	2	0.77	182	69.73
		108	14	5.36	196	75.10
		109	2	0.77	198	75.86
		110	6	2.30	204	78.16
		111	22	8.43	226	86.59
		112	4	1.53	230	88.12
		113	3	1.15	233	89.27
		114	16	6.13	249	95.40
		115	1	0.38	250	95.79
		116	2	0.77	252	96.55
		117	9	3.45	261	100

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	0	0	0	0
		3	0	0	0	0
		4	0	0	0	0
		5	0	0	0	0
		6	0	0	0	0
		7	0	0	0	0
		8	0	0	0	0
		9	0	0	0	0
		10	1	0.38	1	0.38
		11	0	0	1	0.38
		12	0	0	1	0.38
		13	1	0.38	2	0.76
		14	0	0	2	0.76
		15	0	0	2	0.76
		16	0	0	2	0.76
		17	0	0	2	0.76
		18	0	0	2	0.76
		19	1	0.38	3	1.15
		20	0	0	3	1.15
		21	0	0	3	1.15
		22	0	0	3	1.15
RLA	8	23	0	0	3	1.15
		24	2	0.76	5	1.91
		25	1	0.38	6	2.29
		26	0	0	6	2.29
		27	1	0.38	7	2.67
		28	2	0.76	9	3.44
		29	0	0	9	3.44
		30	2	0.76	11	4.20
		31	1	0.38	12	4.58
		32	1	0.38	13	4.96
		33	1	0.38	14	5.34
		34	0	0	14	5.34
		35	3	1.15	17	6.49
		36	1	0.38	18	6.87
		37	0	0	18	6.87
		38	2	0.76	20	7.63
		39	5	1.91	25	9.54
		40	2	0.76	27	10.31
		41	2	0.76	29	11.07
		42	2	0.76	31	11.83
		43	0	0	31	11.83
		44	2	0.76	33	12.60
		45	0	0	33	12.60

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	3	1.15	36	13.74
		47	0	0	36	13.74
		48	1	0.38	37	14.12
		49	2	0.76	39	14.89
		50	3	1.15	42	16.03
		51	4	1.53	46	17.56
		52	3	1.15	49	18.70
		53	1	0.38	50	19.08
		54	1	0.38	51	19.47
		55	1	0.38	52	19.85
		56	2	0.76	54	20.61
		57	3	1.15	57	21.76
		58	3	1.15	60	22.90
		59	1	0.38	61	23.28
		60	2	0.76	63	24.05
		61	4	1.53	67	25.57
		62	3	1.15	70	26.72
		63	4	1.53	74	28.24
		64	2	0.76	76	29.01
		65	4	1.53	80	30.53
		66	2	0.76	82	31.30
		67	2	0.76	84	32.06
RLA	8	68	3	1.15	87	33.21
		69	6	2.29	93	35.50
		70	3	1.15	96	36.64
		71	7	2.67	103	39.31
		72	6	2.29	109	41.60
		73	6	2.29	115	43.89
		74	6	2.29	121	46.18
		75	3	1.15	124	47.33
		76	6	2.29	130	49.62
		77	3	1.15	133	50.76
		78	4	1.53	137	52.29
		79	4	1.53	141	53.82
		80	7	2.67	148	56.49
		81	12	4.58	160	61.07
		82	6	2.29	166	63.36
		83	7	2.67	173	66.03
		84	9	3.44	182	69.47
		85	2	0.76	184	70.23
		86	7	2.67	191	72.90
		87	8	3.05	199	75.95
		88	2	0.76	201	76.72
		89	7	2.67	208	79.39
		90	11	4.20	219	83.59

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
RLA	8	91	6	2.29	225	85.88
		92	5	1.91	230	87.79
		93	5	1.91	235	89.69
		94	2	0.76	237	90.46
		95	3	1.15	240	91.60
		96	1	0.38	241	91.98
		97	2	0.76	243	92.75
		98	3	1.15	246	93.89
		99	6	2.29	252	96.18
		100	3	1.15	255	97.33
		101	2	0.76	257	98.09
		102	5	1.91	262	100

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	1	0.38	1	0.38
		1	0	0	1	0.38
		2	0	0	1	0.38
		3	0	0	1	0.38
		4	0	0	1	0.38
		5	0	0	1	0.38
		6	0	0	1	0.38
		7	0	0	1	0.38
		8	0	0	1	0.38
		9	1	0.38	2	0.75
		10	0	0	2	0.75
		11	0	0	2	0.75
		12	0	0	2	0.75
		13	0	0	2	0.75
		14	0	0	2	0.75
		15	1	0.38	3	1.13
		16	0	0	3	1.13
		17	1	0.38	4	1.51
		18	0	0	4	1.51
		19	0	0	4	1.51
		20	2	0.75	6	2.26
		21	0	0	6	2.26
RLA	11	22	0	0	6	2.26
		23	1	0.38	7	2.64
		24	2	0.75	9	3.40
		25	3	1.13	12	4.53
		26	3	1.13	15	5.66
		27	3	1.13	18	6.79
		28	2	0.75	20	7.55
		29	3	1.13	23	8.68
		30	1	0.38	24	9.06
		31	0	0	24	9.06
		32	2	0.75	26	9.81
		33	2	0.75	28	10.57
		34	2	0.75	30	11.32
		35	1	0.38	31	11.70
		36	1	0.38	32	12.08
		37	0	0	32	12.08
		38	0	0	32	12.08
		39	1	0.38	33	12.45
		40	1	0.38	34	12.83
		41	1	0.38	35	13.21
		42	2	0.75	37	13.96
		43	2	0.75	39	14.72
		44	1	0.38	40	15.09
		45	2	0.75	42	15.85

Table 35
Raw Score Frequency Distributions for Reading/Language Arts (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	0	0	42	15.85
		47	2	0.75	44	16.60
		48	1	0.38	45	16.98
		49	1	0.38	46	17.36
		50	1	0.38	47	17.74
		51	6	2.26	53	20.00
		52	1	0.38	54	20.38
		53	3	1.13	57	21.51
		54	4	1.51	61	23.02
		55	2	0.75	63	23.77
		56	2	0.75	65	24.53
		57	5	1.89	70	26.42
		58	1	0.38	71	26.79
		59	1	0.38	72	27.17
		60	1	0.38	73	27.55
		61	0	0	73	27.55
		62	2	0.75	75	28.30
		63	9	3.40	84	31.70
		64	3	1.13	87	32.83
RLA	11	65	2	0.75	89	33.58
		66	9	3.40	98	36.98
		67	0	0	98	36.98
		68	5	1.89	103	38.87
		69	10	3.77	113	42.64
		70	1	0.38	114	43.02
		71	2	0.75	116	43.77
		72	8	3.02	124	46.79
		73	1	0.38	125	47.17
		74	6	2.26	131	49.43
		75	13	4.91	144	54.34
		76	2	0.75	146	55.09
		77	3	1.13	149	56.23
		78	30	11.32	179	67.55
		79	2	0.75	181	68.30
		80	6	2.26	187	70.57
		81	29	10.94	216	81.51
		82	1	0.38	217	81.89
		83	1	0.38	218	82.26
		84	47	17.74	265	100

Table 36
Raw Score Frequency Distributions for Science

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	0	0	0	0
		1	0	0	0	0
		2	0	0	0	0
		3	0	0	0	0
		4	0	0	0	0
		5	0	0	0	0
		6	1	0.36	1	0.36
		7	0	0	1	0.36
		8	0	0	1	0.36
		9	0	0	1	0.36
		10	0	0	1	0.36
		11	1	0.36	2	0.71
		12	0	0	2	0.71
		13	0	0	2	0.71
		14	0	0	2	0.71
		15	0	0	2	0.71
		16	0	0	2	0.71
		17	0	0	2	0.71
		18	0	0	2	0.71
		19	0	0	2	0.71
		20	0	0	2	0.71
		21	0	0	2	0.71
SC	4	22	0	0	2	0.71
		23	0	0	2	0.71
		24	0	0	2	0.71
		25	0	0	2	0.71
		26	0	0	2	0.71
		27	0	0	2	0.71
		28	3	1.07	5	1.78
		29	1	0.36	6	2.14
		30	3	1.07	9	3.20
		31	2	0.71	11	3.91
		32	4	1.42	15	5.34
		33	1	0.36	16	5.69
		34	4	1.42	20	7.12
		35	2	0.71	22	7.83
		36	0	0	22	7.83
		37	0	0	22	7.83
		38	1	0.36	23	8.19
		39	0	0	23	8.19
		40	0	0	23	8.19
		41	1	0.36	24	8.54
		42	2	0.71	26	9.25
		43	0	0	26	9.25
		44	1	0.36	27	9.61
		45	2	0.71	29	10.32

Table 36
Raw Score Frequency Distributions for Science (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	1	0.36	30	10.68
		47	0	0	30	10.68
		48	2	0.71	32	11.39
		49	1	0.36	33	11.74
		50	3	1.07	36	12.81
		51	2	0.71	38	13.52
		52	2	0.71	40	14.23
		53	0	0	40	14.23
		54	3	1.07	43	15.30
		55	1	0.36	44	15.66
		56	1	0.36	45	16.01
		57	2	0.71	47	16.73
		58	1	0.36	48	17.08
		59	3	1.07	51	18.15
		60	3	1.07	54	19.22
		61	0	0	54	19.22
		62	4	1.42	58	20.64
		63	3	1.07	61	21.71
		64	1	0.36	62	22.06
		65	4	1.42	66	23.49
		66	10	3.56	76	27.05
		67	0	0	76	27.05
SC	4	68	2	0.71	78	27.76
		69	10	3.56	88	31.32
		70	3	1.07	91	32.38
		71	0	0	91	32.38
		72	10	3.56	101	35.94
		73	1	0.36	102	36.30
		74	0	0	102	36.30
		75	14	4.98	116	41.28
		76	2	0.71	118	41.99
		77	5	1.78	123	43.77
		78	9	3.20	132	46.98
		79	2	0.71	134	47.69
		80	5	1.78	139	49.47
		81	15	5.34	154	54.80
		82	2	0.71	156	55.52
		83	5	1.78	161	57.30
		84	8	2.85	169	60.14
		85	6	2.14	175	62.28
		86	2	0.71	177	62.99
		87	10	3.56	187	66.55
		88	5	1.78	192	68.33
		89	4	1.42	196	69.75
		90	13	4.63	209	74.38

Table 36
Raw Score Frequency Distributions for Science (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		91	4	1.42	213	75.80
		92	6	2.14	219	77.94
		93	10	3.56	229	81.49
		94	3	1.07	232	82.56
		95	3	1.07	235	83.63
SC	4	96	15	5.34	250	88.97
		97	1	0.36	251	89.32
		98	2	0.71	253	90.04
		99	10	3.56	263	93.59
		100	2	0.71	265	94.31
		101	0	0	265	94.31
		102	16	5.69	281	100

Table 36
Raw Score Frequency Distributions for Science (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	1	0.38	1	0.38
		1	0	0	1	0.38
		2	0	0	1	0.38
		3	0	0	1	0.38
		4	0	0	1	0.38
		5	0	0	1	0.38
		6	0	0	1	0.38
		7	0	0	1	0.38
		8	0	0	1	0.38
		9	0	0	1	0.38
		10	0	0	1	0.38
		11	0	0	1	0.38
		12	0	0	1	0.38
		13	0	0	1	0.38
		14	0	0	1	0.38
		15	0	0	1	0.38
		16	0	0	1	0.38
		17	0	0	1	0.38
		18	0	0	1	0.38
		19	0	0	1	0.38
		20	0	0	1	0.38
		21	0	0	1	0.38
SC	6	22	0	0	1	0.38
		23	0	0	1	0.38
		24	0	0	1	0.38
		25	0	0	1	0.38
		26	0	0	1	0.38
		27	0	0	1	0.38
		28	0	0	1	0.38
		29	0	0	1	0.38
		30	0	0	1	0.38
		31	1	0.38	2	0.76
		32	0	0	2	0.76
		33	1	0.38	3	1.14
		34	2	0.76	5	1.89
		35	1	0.38	6	2.27
		36	2	0.76	8	3.03
		37	6	2.27	14	5.30
		38	7	2.65	21	7.95
		39	1	0.38	22	8.33
		40	1	0.38	23	8.71
		41	2	0.76	25	9.47
		42	0	0	25	9.47
		43	0	0	25	9.47
		44	1	0.38	26	9.85
		45	0	0	26	9.85

Table 36
Raw Score Frequency Distributions for Science (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	0	0	26	9.85
		47	2	0.76	28	10.61
		48	1	0.38	29	10.98
		49	1	0.38	30	11.36
		50	0	0	30	11.36
		51	1	0.38	31	11.74
		52	2	0.76	33	12.50
		53	3	1.14	36	13.64
		54	0	0	36	13.64
		55	1	0.38	37	14.02
		56	1	0.38	38	14.39
		57	0	0	38	14.39
		58	4	1.52	42	15.91
		59	0	0	42	15.91
		60	2	0.76	44	16.67
		61	1	0.38	45	17.05
		62	1	0.38	46	17.42
		63	3	1.14	49	18.56
		64	1	0.38	50	18.94
		65	2	0.76	52	19.70
		66	1	0.38	53	20.08
		67	6	2.27	59	22.35
SC	6	68	0	0	59	22.35
		69	4	1.52	63	23.86
		70	1	0.38	64	24.24
		71	3	1.14	67	25.38
		72	2	0.76	69	26.14
		73	2	0.76	71	26.89
		74	2	0.76	73	27.65
		75	0	0	73	27.65
		76	2	0.76	75	28.41
		77	2	0.76	77	29.17
		78	4	1.52	81	30.68
		79	2	0.76	83	31.44
		80	8	3.03	91	34.47
		81	3	1.14	94	35.61
		82	3	1.14	97	36.74
		83	5	1.89	102	38.64
		84	7	2.65	109	41.29
		85	1	0.38	110	41.67
		86	7	2.65	117	44.32
		87	8	3.03	125	47.35
		88	4	1.52	129	48.86
		89	5	1.89	134	50.76
		90	4	1.52	138	52.27

Table 36
Raw Score Frequency Distributions for Science (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		91	4	1.52	142	53.79
		92	5	1.89	147	55.68
		93	3	1.14	150	56.82
		94	3	1.14	153	57.95
		95	6	2.27	159	60.23
		96	10	3.79	169	64.02
		97	3	1.14	172	65.15
		98	7	2.65	179	67.80
		99	11	4.17	190	71.97
		100	5	1.89	195	73.86
		101	4	1.52	199	75.38
SC	6	102	3	1.14	202	76.52
		103	5	1.89	207	78.41
		104	7	2.65	214	81.06
		105	10	3.79	224	84.85
		106	4	1.52	228	86.36
		107	5	1.89	233	88.26
		108	5	1.89	238	90.15
		109	4	1.52	242	91.67
		110	5	1.89	247	93.56
		111	6	2.27	253	95.83
		112	1	0.38	254	96.21
		113	4	1.52	258	97.73
		114	6	2.27	264	100

Table 36
Raw Score Frequency Distributions for Science (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		0	1	0.38	1	0.38
		1	0	0	1	0.38
		2	0	0	1	0.38
		3	0	0	1	0.38
		4	0	0	1	0.38
		5	0	0	1	0.38
		6	0	0	1	0.38
		7	0	0	1	0.38
		8	0	0	1	0.38
		9	0	0	1	0.38
		10	0	0	1	0.38
		11	0	0	1	0.38
		12	0	0	1	0.38
		13	0	0	1	0.38
		14	1	0.38	2	0.75
		15	0	0	2	0.75
		16	0	0	2	0.75
		17	0	0	2	0.75
		18	0	0	2	0.75
		19	0	0	2	0.75
		20	0	0	2	0.75
		21	0	0	2	0.75
SC	11	22	1	0.38	3	1.13
		23	1	0.38	4	1.51
		24	1	0.38	5	1.89
		25	0	0	5	1.89
		26	0	0	5	1.89
		27	0	0	5	1.89
		28	0	0	5	1.89
		29	0	0	5	1.89
		30	0	0	5	1.89
		31	1	0.38	6	2.26
		32	0	0	6	2.26
		33	1	0.38	7	2.64
		34	0	0	7	2.64
		35	3	1.13	10	3.77
		36	3	1.13	13	4.91
		37	6	2.26	19	7.17
		38	2	0.75	21	7.92
		39	2	0.75	23	8.68
		40	0	0	23	8.68
		41	0	0	23	8.68
		42	1	0.38	24	9.06
		43	3	1.13	27	10.19
		44	1	0.38	28	10.57
		45	3	1.13	31	11.70

Table 36
Raw Score Frequency Distributions for Science (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		46	0	0	31	11.70
		47	0	0	31	11.70
		48	1	0.38	32	12.08
		49	2	0.75	34	12.83
		50	0	0	34	12.83
		51	1	0.38	35	13.21
		52	2	0.75	37	13.96
		53	4	1.51	41	15.47
		54	0	0	41	15.47
		55	1	0.38	42	15.85
		56	2	0.75	44	16.60
		57	1	0.38	45	16.98
		58	0	0	45	16.98
		59	2	0.75	47	17.74
		60	2	0.75	49	18.49
		61	0	0	49	18.49
		62	4	1.51	53	20.00
		63	4	1.51	57	21.51
		64	1	0.38	58	21.89
		65	3	1.13	61	23.02
		66	1	0.38	62	23.40
		67	1	0.38	63	23.77
SC	11	68	2	0.75	65	24.53
		69	3	1.13	68	25.66
		70	1	0.38	69	26.04
		71	4	1.51	73	27.55
		72	5	1.89	78	29.43
		73	0	0	78	29.43
		74	5	1.89	83	31.32
		75	3	1.13	86	32.45
		76	2	0.75	88	33.21
		77	4	1.51	92	34.72
		78	6	2.26	98	36.98
		79	0	0	98	36.98
		80	2	0.75	100	37.74
		81	7	2.64	107	40.38
		82	2	0.75	109	41.13
		83	3	1.13	112	42.26
		84	4	1.51	116	43.77
		85	7	2.64	123	46.42
		86	5	1.89	128	48.30
		87	6	2.26	134	50.57
		88	1	0.38	135	50.94
		89	6	2.26	141	53.21
		90	3	1.13	144	54.34

Table 36
Raw Score Frequency Distributions for Science (continued)

Content	Grade	Raw Score	Frequency	Percent	Cumulative	
					Frequency	Percent
		91	0	0	144	54.34
		92	6	2.26	150	56.60
		93	8	3.02	158	59.62
		94	0	0	158	59.62
		95	8	3.02	166	62.64
		96	9	3.40	175	66.04
		97	0	0	175	66.04
		98	6	2.26	181	68.30
		99	6	2.26	187	70.57
		100	3	1.13	190	71.70
		101	5	1.89	195	73.58
SC	11	102	16	6.04	211	79.62
		103	0	0	211	79.62
		104	3	1.13	214	80.75
		105	10	3.77	224	84.53
		106	1	0.38	225	84.91
		107	4	1.51	229	86.42
		108	11	4.15	240	90.57
		109	0	0	240	90.57
		110	1	0.38	241	90.94
		111	11	4.15	252	95.09
		112	1	0.38	253	95.47
		113	2	0.75	255	96.23
		114	10	3.77	265	100

Table 37
Prompt Type Frequency by Content

Content	Prompt Type	Frequency	Percent
MA	No Response	4,227	2.27
	Full	15,510	8.32
	Partial	10,773	5.78
	Independent	155,886	83.63
	Total	186,396	100
RLA	No Response	4,539	2.89
	Full	13,047	8.30
	Partial	7,632	4.86
	Independent	131,910	83.95
	Total	157,128	100
SC	No Response	1,686	2.14
	Full	5,943	7.54
	Partial	4,059	5.15
	Independent	67,143	85.17
	Total	78,831	100

Table 38
Reliability of Prompt Type by Content and Grade

Content	Grade	Prompt Type
		Alpha
MA	3	0.99
	4	0.98
	5	0.98
	6	0.98
	7	0.99
	8	0.98
	11	0.99
RLA	3	0.98
	4	0.97
	5	0.97
	6	0.98
	7	0.99
	8	0.97
	11	0.99
SC	4	0.98
	6	0.99
	11	0.99

Table 39
Longitudinal Total Group Means and Standard Deviations for Mathematics

Content	Grade	2006 Raw Score		2007 Raw Score		2008 Raw Score		2009 Raw Score	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
MA	3	66.95	23.50	73.90	21.12	74.67	21.78	72.21	22.98
	4	65.59	23.73	71.72	24.17	74.99	24.15	76.09	23.18
	5	74.61	29.15	86.93	27.27	91.25	26.62	94.13	26.70
	6	63.49	21.17	65.84	21.64	67.05	20.77	68.29	20.87
	7	59.71	18.98	64.30	16.69	61.51	17.86	65.70	18.55
	8	70.35	24.70	73.88	20.98	76.39	21.03	75.56	20.75
	10	46.66	22.21	55.09	19.79	54.42	20.29	–	–
	11	–	–	–	–	–	–	57.42	21.16

*There is no grade 10 data for 2009 or grade 11 data for 2006, 2007, and 2008 due to changes in the grade level assessed in 2009.

Content	Grade	Longitudinal Differences Across Years					
		2007 Minus 2006		2008 Minus 2007		2009 Minus 2008	
		Mean	SD	Mean	SD	Mean	SD
MA	3	6.95	-2.38	0.77	0.66	-2.46	1.20
	4	6.13	0.44	3.27	-0.02	1.10	-0.97
	5	12.32	-1.88	4.32	-0.65	2.88	0.08
	6	2.35	0.47	1.21	-0.87	1.24	0.10
	7	4.59	-2.29	-2.79	1.17	4.19	0.69
	8	3.53	-3.72	2.51	0.05	-0.83	-0.28

Table 40
Longitudinal Total Group Means and Standard Deviations for Reading/Language Arts

Content	Grade	2006 Raw Score		2007 Raw Score		2008 Raw Score		2009 Raw Score	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
RLA	3	60.06	21.99	63.64	17.98	65.15	18.06	62.56	19.11
	4	54.67	17.15	53.53	16.44	56.71	15.91	56.48	15.25
	5	49.05	18.50	53.62	17.50	55.32	17.90	56.58	17.20
	6	66.20	18.73	69.52	19.83	69.28	18.49	69.10	20.38
	7	83.72	26.53	93.13	21.70	91.15	24.55	90.28	24.66
	8	64.68	23.77	68.66	20.15	73.85	20.19	72.36	20.02
	10	57.07	23.82	66.44	18.65	66.56	18.58	–	–
	11	–	–	–	–	–	–	66.60	18.95

*There is no grade 10 data for 2009 or grade 11 data for 2006, 2007, and 2008 due to changes in the grade level assessed in 2009.

Content	Grade	Longitudinal Differences Across Years					
		2007 Minus 2006		2008 Minus 2007		2009 Minus 2008	
		Mean	SD	Mean	SD	Mean	SD
RLA	3	3.58	-4.01	1.51	0.08	-2.59	1.05
	4	-1.14	-0.71	3.18	-0.53	-0.23	-0.66
	5	4.57	-1.00	1.70	0.40	1.26	-0.70
	6	3.32	1.10	-0.24	-1.34	-0.18	1.89
	7	9.41	-4.83	-1.98	2.85	-0.87	0.11
	8	3.98	-3.62	5.19	0.04	-1.49	-0.17

Table 41
Longitudinal Total Group Means and Standard Deviations for Science

Content	Grade	2008 Raw Score		2009 Raw Score	
		Mean	SD	Mean	SD
SC	4	73.28	19.76	75.96	20.02
	6	84.96	20.61	84.10	22.63
	11	80.39	21.59	82.57	23.93

Content	Grade	2009 Minus 2008	
		Mean	SD
SC	4	2.68	0.26
	6	-0.86	2.02
	11	2.18	2.34

Table 42
Longitudinal Participation, by Gender and Ethnicity, for Mathematics

Content	Variable	Subgroup	Grade 3				Grade 4			
			2006	2007	2008	2009	2006	2007	2008	2009
MA	Gender	Female	36%	38%	32%	35%	37%	37%	37%	32%
		Male	64%	62%	68%	65%	63%	63%	63%	68%
	Ethnicity	African American	7%	6%	8%	4%	4%	7%	7%	8%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	0%	0%	0%	0%	1%	1%	2%	0%
		Hispanic	1%	0%	0%	1%	0%	1%	1%	0%
		White (not Hispanic)	92%	92%	92%	94%	93%	90%	89%	90%
		Other	0%	1%	0%	1%	0%	1%	2%	1%

Content	Variable	Subgroup	Grade 3 Differences			Grade 4 Differences		
			2007	2008	2009	2007	2008	2009
			Minus 2006	Minus 2007	Minus 2008	Minus 2006	Minus 2007	Minus 2008
MA	Gender	Female	2%	-6%	2%	0%	0%	-5%
		Male	-2%	6%	-2%	0%	0%	5%
	Ethnicity	African American	-1%	2%	-4%	3%	0%	2%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	0%	0%	0%	-1%	1%	-2%
		Hispanic	0%	0%	1%	1%	0%	0%
		White (not Hispanic)	0%	-1%	2%	-3%	-1%	1%
		Other	1%	0%	0%	1%	1%	-1%

Table 42
Longitudinal Participation, by Gender and Ethnicity, for Mathematics (continued)

Content	Variable	Subgroup	Grade 5				Grade 6			
			2006	2007	2008	2009	2006	2007	2008	2009
MA	Gender	Female	41%	36%	37%	36%	34%	37%	38%	35%
		Male	59%	64%	63%	64%	66%	63%	63%	65%
	Ethnicity	African American	8%	6%	6%	5%	8%	8%	5%	6%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	0%	1%	0%	1%	0%	0%	1%	1%
		Hispanic	1%	1%	1%	0%	1%	0%	0%	1%
		White (not Hispanic)	92%	91%	93%	93%	90%	92%	91%	91%
		Other	0%	1%	0%	1%	0%	0%	2%	1%

Content	Variable	Subgroup	Grade 5 Differences			Grade 6 Differences		
			2007	2008	2009	2007	2008	2009
			Minus 2006	Minus 2007	Minus 2008	Minus 2006	Minus 2007	Minus 2008
MA	Gender	Female	-5%	2%	-1%	3%	0%	-3%
		Male	5%	-2%	1%	-3%	0%	3%
	Ethnicity	African American	-1%	0%	-1%	0%	-3%	1%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	1%	-1%	0%	0%	1%	0%
		Hispanic	0%	0%	-1%	-1%	0%	1%
		White (not Hispanic)	-1%	2%	0%	1%	-1%	0%
		Other	1%	-1%	1%	0%	2%	-2%

Table 42
Longitudinal Participation, by Gender and Ethnicity, for Mathematics (continued)

Content	Variable	Subgroup	Grade 7				Grade 8			
			2006	2007	2008	2009	2006	2007	2008	2009
MA	Gender	Female	33%	32%	36%	37%	36%	37%	31%	35%
		Male	67%	69%	64%	63%	64%	63%	69%	65%
	Ethnicity	African American	9%	8%	6%	6%	6%	7%	7%	5%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	0%	0%	0%	0%	0%	0%	1%	0%
		Hispanic	0%	0%	0%	1%	0%	0%	0%	0%
		White (not Hispanic)	90%	91%	94%	92%	92%	92%	91%	94%
		Other	0%	0%	0%	1%	1%	0%	1%	0%

Content	Variable	Subgroup	Grade 7 Differences			Grade 8 Differences		
			2007	2008	2009	2007	2008	2009
			Minus 2006	Minus 2007	Minus 2008	Minus 2006	Minus 2007	Minus 2008
MA	Gender	Female	-2%	4%	1%	1%	-6%	4%
		Male	2%	-4%	-1%	-1%	6%	-4%
	Ethnicity	African American	-1%	-2%	0%	1%	-1%	-1%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	0%	0%	0%	0%	0%	0%
		Hispanic	0%	0%	1%	0%	0%	0%
		White (not Hispanic)	1%	2%	-2%	0%	-1%	3%
		Other	0%	0%	0%	-1%	1%	-1%

Table 43
Longitudinal Participation, by Gender and Ethnicity, for Reading/Language Arts

Content	Variable	Subgroup	Grade 3				Grade 4			
			2006	2007	2008	2009	2006	2007	2008	2009
	Gender	Female	35%	38%	32%	35%	37%	36%	36%	32%
		Male	65%	62%	68%	65%	63%	64%	64%	68%
RLA	Ethnicity	African American	7%	6%	8%	4%	4%	7%	7%	9%
		Pacific Islander/ American Indian/ Alaskan Native	0%	0%	0%	0%	1%	1%	2%	0%
		Hispanic	1%	0%	0%	1%	0%	1%	1%	0%
		White (not Hispanic)	92%	92%	92%	94%	93%	90%	89%	90%
		Other	0%	1%	0%	1%	1%	1%	2%	1%

Content	Variable	Subgroup	Grade 3 Differences			Grade 4 Differences		
			2007	2008	2009	2007	2008	2009
			Minus 2006	Minus 2007	Minus 2008	Minus 2006	Minus 2007	Minus 2008
	Gender	Female	2%	-6%	3%	-1%	0%	-4%
		Male	-2%	6%	-3%	1%	0%	4%
RLA	Ethnicity	African American	-1%	2%	-4%	3%	0%	2%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	0%	0%	0%	-1%	1%	-2%
		Hispanic	0%	0%	1%	1%	0%	0%
		White (not Hispanic)	0%	-1%	2%	-3%	-1%	1%
		Other	1%	0%	0%	0%	1%	-1%

Table 43
Longitudinal Participation, by Gender and Ethnicity, for Reading/Language Arts (continued)

Content	Variable	Subgroup	Grade 5				Grade 6			
			2006	2007	2008	2009	2006	2007	2008	2009
RLA	Gender	Female	40%	36%	37%	36%	35%	38%	38%	35%
		Male	60%	64%	63%	64%	65%	62%	63%	65%
	Ethnicity	African American	8%	6%	6%	5%	8%	8%	5%	6%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	0%	1%	0%	1%	0%	0%	1%	1%
		Hispanic	1%	1%	1%	0%	1%	0%	0%	1%
		White (not Hispanic)	92%	91%	93%	92%	90%	92%	91%	91%
		Other	0%	1%	0%	1%	0%	0%	2%	1%

Content	Variable	Subgroup	Grade 5 Differences			Grade 6 Differences		
			2007	2008	2009	2007	2008	2009
			Minus 2006	Minus 2007	Minus 2008	Minus 2006	Minus 2007	Minus 2008
RLA	Gender	Female	-4%	1%	-1%	3%	0%	-3%
		Male	4%	-1%	1%	-3%	0%	3%
	Ethnicity	African American	-1%	0%	0%	0%	-3%	1%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	1%	-1%	0%	0%	1%	0%
		Hispanic	0%	0%	-1%	-1%	0%	1%
		White (not Hispanic)	-1%	2%	-1%	1%	-1%	0%
		Other	1%	-1%	1%	0%	2%	-2%

Table 43
Longitudinal Participation, by Gender and Ethnicity, for Reading/Language Arts (continued)

Content	Variable	Subgroup	Grade 7				Grade 8			
			2006	2007	2008	2009	2006	2007	2008	2009
RLA	Gender	Female	33%	32%	36%	38%	36%	37%	31%	35%
		Male	67%	69%	64%	62%	64%	63%	69%	65%
	Ethnicity	African American	9%	8%	6%	7%	6%	7%	7%	5%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	0%	0%	0%	0%	0%	0%	1%	0%
		Hispanic	0%	0%	0%	1%	1%	0%	0%	0%
		White (not Hispanic)	90%	91%	94%	91%	92%	92%	91%	94%
		Other	0%	0%	0%	1%	1%	0%	1%	0%

Content	Variable	Subgroup	Grade 7 Differences			Grade 8 Differences		
			2007	2008	2009	2007	2008	2009
			Minus 2006	Minus 2007	Minus 2008	Minus 2006	Minus 2007	Minus 2008
RLA	Gender	Female	-2%	4%	2%	1%	-6%	4%
		Male	2%	-4%	-2%	-1%	6%	-4%
	Ethnicity	African American	-1%	-2%	0%	1%	-1%	-1%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	0%	0%	0%	0%	0%	0%
		Hispanic	0%	0%	1%	-1%	0%	0%
		White (not Hispanic)	2%	2%	-2%	0%	-1%	3%
		Other	0%	0%	0%	-1%	1%	-1%

Table 44
Longitudinal Participation, by Gender and Ethnicity, for Science

Content	Variable	Subgroup	Grade 4		Grade 6		Grade 11	
			2008	2009	2008	2009	2008	2009
SC	Gender	Female	36%	32%	38%	35%	36%	35%
		Male	64%	68%	62%	65%	64%	65%
	Ethnicity	African American	7%	9%	5%	6%	4%	8%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	2%	0%	1%	1%	0%	0%
		Hispanic	1%	0%	0%	1%	1%	1%
		White (not Hispanic)	89%	90%	91%	91%	94%	90%
		Other	2%	1%	2%	1%	1%	1%

Content	Variable	Subgroup	Longitudinal Differences		
			2009 Minus 2008		
			Grade 4	Grade 6	Grade 11
SC	Gender	Female	-4%	-2%	-2%
		Male	4%	2%	2%
	Ethnicity	African American	2%	1%	4%
		Asian/ Pacific Islander/ American Indian/ Alaskan Native	-2%	0%	0%
		Hispanic	0%	1%	0%
		White (not Hispanic)	1%	0%	-3%
		Other	-1%	-2%	0%

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics

Content	Grade	2006						2007							
		With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance				
		Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test		
Item	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Item	Points	Difficulty	Correlation	Points	Difficulty	Correlation		
MA	3	1	3	0.87	0.67	1	0.83	0.71	1	3	0.91	0.64	1	0.88	0.70
		2	3	0.64	0.67	1	0.58	0.68	2	3	0.77	0.67	1	0.69	0.75
		3	3	0.63	0.65	1	0.58	0.68	3	3	0.73	0.67	1	0.64	0.73
		4	3	0.64	0.51	1	0.59	0.56	4	3	0.66	0.46	1	0.58	0.52
		5	3	0.77	0.55	1	0.73	0.61	5	3	0.88	0.51	1	0.84	0.60
		6	3	0.72	0.59	1	0.68	0.66	6	3	0.74	0.54	1	0.70	0.63
		7	3	0.63	0.50	1	0.60	0.57	7	3	0.72	0.41	1	0.67	0.51
		8	3	0.24	0.27	1	0.20	0.34	8	3	0.33	0.32	1	0.28	0.41
		9	3	0.80	0.72	1	0.72	0.71	9	3	0.80	0.63	1	0.72	0.73
		10	3	0.78	0.67	1	0.72	0.71	10	3	0.80	0.72	1	0.72	0.76
		11	3	0.71	0.59	1	0.68	0.61	11	3	0.77	0.61	1	0.70	0.71
		12	3	0.84	0.69	1	0.81	0.71	12	3	0.84	0.56	1	0.77	0.71
		13	3	0.69	0.52	1	0.65	0.60	13	3	0.73	0.52	1	0.67	0.63
		14	3	0.57	0.52	1	0.51	0.57	14	3	0.55	0.49	1	0.47	0.54
		15	3	0.74	0.58	1	0.69	0.61	15	3	0.78	0.57	1	0.70	0.67
		16	3	0.81	0.76	1	0.77	0.79	16*	3	0.84	0.63	1	0.80	0.72
		17	3	0.81	0.70	1	0.78	0.75	17*	3	0.86	0.62	1	0.82	0.72
		18	3	0.74	0.66	1	0.68	0.70	18	3	0.79	0.61	1	0.72	0.72
		19	3	0.41	0.36	1	0.36	0.39	19	3	0.45	0.33	1	0.39	0.43
		20	3	0.76	0.70	1	0.70	0.74	20	3	0.79	0.66	1	0.72	0.75
		21	3	0.85	0.64	1	0.82	0.68	21	3	0.91	0.54	1	0.88	0.62
		22	3	0.36	0.34	1	0.31	0.43	22	3	0.43	0.38	1	0.36	0.47
		23	3	0.68	0.52	1	0.64	0.59	23	3	0.72	0.54	1	0.67	0.61
		24	3	0.69	0.61	1	0.62	0.65	24	3	0.73	0.55	1	0.66	0.64
		25	3	0.67	0.55	1	0.62	0.60	25	3	0.67	0.54	1	0.60	0.66
		26	3	0.76	0.61	1	0.71	0.68	26	3	0.79	0.51	1	0.73	0.60
		27	3	0.78	0.60	1	0.74	0.68	27	3	0.84	0.61	1	0.77	0.71
		28	3	0.79	0.66	1	0.74	0.75	28	3	0.83	0.68	1	0.76	0.77
		29	3	0.39	0.42	1	0.36	0.48	29	3	0.51	0.47	1	0.45	0.52
		30	3	0.70	0.69	1	0.68	0.73	30	3	0.80	0.62	1	0.76	0.66
		31	3	0.40	0.52	1	0.38	0.54	31	3	0.48	0.52	1	0.43	0.56
		32	3	0.85	0.70	1	0.80	0.74	32	3	0.90	0.58	1	0.86	0.69
		33	3	0.60	0.54	1	0.55	0.61	33	3	0.75	0.57	1	0.68	0.68
		34	–	–	–	–	–	–	34*	6	0.25	0.42	2	0.19	0.42

– there was no item 34 in 2006

* new item in 2007

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2008						2009						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
MA	3	1	3	0.88	0.52	1	0.85	0.56	1	3	0.90	0.60	1	0.87	0.70
		2	3	0.74	0.67	1	0.66	0.68	2	3	0.68	0.67	1	0.59	0.68
		3	3	0.72	0.69	1	0.67	0.70	3	3	0.66	0.70	1	0.57	0.72
		4	3	0.74	0.42	1	0.68	0.50	4	3	0.71	0.51	1	0.65	0.58
		5	3	0.80	0.47	1	0.76	0.54	5	3	0.78	0.62	1	0.75	0.70
		6	3	0.80	0.59	1	0.76	0.64	6	3	0.74	0.56	1	0.70	0.65
		7	3	0.72	0.40	1	0.68	0.47	7	3	0.67	0.48	1	0.62	0.57
		8	3	0.30	0.34	1	0.26	0.40	8	3	0.32	0.32	1	0.27	0.42
		9	3	0.81	0.58	1	0.75	0.64	9	3	0.84	0.62	1	0.76	0.68
		10	3	0.80	0.63	1	0.75	0.68	10	3	0.81	0.69	1	0.73	0.72
		11	3	0.75	0.59	1	0.72	0.60	11	3	0.75	0.58	1	0.70	0.65
		12	3	0.85	0.67	1	0.80	0.76	12	3	0.83	0.64	1	0.77	0.74
		13	3	0.73	0.51	1	0.70	0.59	13	3	0.65	0.53	1	0.59	0.60
		14	3	0.60	0.46	1	0.55	0.51	14	3	0.57	0.48	1	0.49	0.54
		15	3	0.78	0.50	1	0.73	0.57	15	3	0.73	0.54	1	0.67	0.59
		16	3	0.87	0.67	1	0.85	0.72	16	3	0.86	0.66	1	0.83	0.75
		17	3	0.84	0.56	1	0.82	0.62	17	3	0.83	0.63	1	0.79	0.72
		18	3	0.78	0.62	1	0.73	0.67	18	3	0.79	0.55	1	0.73	0.65
		19	3	0.45	0.34	1	0.41	0.41	19	3	0.44	0.32	1	0.37	0.40
		20	3	0.79	0.63	1	0.73	0.69	20	3	0.80	0.66	1	0.73	0.71
		21	3	0.92	0.52	1	0.88	0.59	21	3	0.88	0.59	1	0.84	0.69
		22	3	0.43	0.39	1	0.37	0.45	22	3	0.38	0.36	1	0.32	0.44
		23	3	0.68	0.48	1	0.65	0.53	23	3	0.66	0.57	1	0.61	0.62
		24	3	0.76	0.51	1	0.71	0.60	24	3	0.72	0.61	1	0.66	0.69
		25	3	0.72	0.48	1	0.67	0.58	25	3	0.71	0.58	1	0.66	0.67
		26	3	0.79	0.55	1	0.75	0.59	26	3	0.72	0.51	1	0.68	0.61
		27	3	0.84	0.51	1	0.80	0.60	27	3	0.79	0.55	1	0.74	0.64
		28	3	0.82	0.61	1	0.78	0.67	28	3	0.78	0.67	1	0.74	0.70
		29	3	0.52	0.52	1	0.49	0.56	29	3	0.48	0.48	1	0.43	0.52
		30	3	0.75	0.64	1	0.73	0.67	30	3	0.76	0.57	1	0.71	0.66
		31	3	0.52	0.52	1	0.49	0.55	31	3	0.48	0.53	1	0.44	0.57
		32	3	0.92	0.59	1	0.87	0.66	32	3	0.87	0.67	1	0.81	0.74
		33	3	0.76	0.59	1	0.72	0.64	33	3	0.68	0.52	1	0.62	0.61
		34	6	0.35	0.49	2	0.27	0.49	34	6	0.40	0.55	2	0.30	0.56

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008			
			With		Without		With		Without		With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	0.04	-0.03	0.05	-0.01	-0.03	-0.12	-0.03	-0.14	0.02	0.08	0.02	0.14
		2	0.13	0.00	0.11	0.07	-0.03	0.00	-0.03	-0.07	-0.06	0.00	-0.07	0.00
		3	0.10	0.02	0.06	0.05	-0.01	0.02	0.03	-0.03	-0.06	0.01	-0.10	0.02
		4	0.02	-0.05	-0.01	-0.04	0.08	-0.04	0.10	-0.02	-0.03	0.09	-0.03	0.08
		5	0.11	-0.04	0.11	-0.01	-0.08	-0.04	-0.08	-0.06	-0.02	0.15	-0.01	0.16
		6	0.02	-0.05	0.02	-0.03	0.06	0.05	0.06	0.01	-0.06	-0.03	-0.06	0.01
		7	0.09	-0.09	0.07	-0.06	0.00	-0.01	0.01	-0.04	-0.05	0.08	-0.06	0.10
		8	0.09	0.05	0.08	0.07	-0.03	0.02	-0.02	-0.01	0.02	-0.02	0.01	0.02
		9	0.00	-0.09	0.00	0.02	0.01	-0.05	0.03	-0.09	0.03	0.04	0.01	0.04
		10	0.02	0.05	0.00	0.05	0.00	-0.09	0.03	-0.08	0.01	0.06	-0.02	0.04
		11	0.06	0.02	0.02	0.10	-0.02	-0.02	0.02	-0.11	0.00	-0.01	-0.02	0.05
		12	0.00	-0.13	-0.04	0.00	0.01	0.11	0.03	0.05	-0.02	-0.03	-0.03	-0.02
		13	0.04	0.00	0.02	0.03	0.00	-0.01	0.03	-0.04	-0.08	0.02	-0.11	0.01
		14	-0.02	-0.03	-0.04	-0.03	0.05	-0.03	0.08	-0.03	-0.03	0.02	-0.06	0.03
		15	0.04	-0.01	0.01	0.06	0.00	-0.07	0.03	-0.10	-0.05	0.04	-0.06	0.02
		16	-	-	-	-	0.03	0.04	0.05	0.00	-0.01	-0.01	-0.02	0.03
MA	3	17	-	-	-	-	-0.02	-0.06	0.00	-0.10	-0.01	0.07	-0.03	0.10
		18	0.05	-0.05	0.04	0.02	-0.01	0.01	0.01	-0.05	0.01	-0.07	0.00	-0.02
		19	0.04	-0.03	0.03	0.04	0.00	0.01	0.02	-0.02	-0.01	-0.02	-0.04	-0.01
		20	0.03	-0.04	0.02	0.01	0.00	-0.03	0.01	-0.06	0.01	0.03	0.00	0.02
		21	0.06	-0.10	0.06	-0.06	0.01	-0.02	0.00	-0.03	-0.04	0.07	-0.04	0.10
		22	0.07	0.04	0.05	0.04	0.00	0.01	0.01	-0.02	-0.05	-0.03	-0.05	-0.01
		23	0.04	0.02	0.03	0.02	-0.04	-0.06	-0.02	-0.08	-0.02	0.09	-0.04	0.09
		24	0.04	-0.06	0.04	-0.01	0.03	-0.04	0.05	-0.04	-0.04	0.10	-0.05	0.09
		25	0.00	-0.01	-0.02	0.06	0.05	-0.06	0.07	-0.08	-0.01	0.10	-0.01	0.09
		26	0.03	-0.10	0.02	-0.08	0.00	0.04	0.02	-0.01	-0.07	-0.04	-0.07	0.02
		27	0.06	0.01	0.03	0.03	0.00	-0.10	0.03	-0.11	-0.05	0.04	-0.06	0.04
		28	0.04	0.02	0.02	0.02	-0.01	-0.07	0.02	-0.10	-0.04	0.06	-0.04	0.03
		29	0.12	0.05	0.09	0.04	0.01	0.05	0.04	0.04	-0.04	-0.04	-0.06	-0.04
		30	0.10	-0.07	0.08	-0.07	-0.05	0.02	-0.03	0.01	0.01	-0.07	-0.02	-0.01
		31	0.08	0.00	0.05	0.02	0.04	0.00	0.06	-0.01	-0.04	0.01	-0.05	0.02
		32	0.05	-0.12	0.06	-0.05	0.02	0.01	0.01	-0.03	-0.05	0.08	-0.06	0.08
		33	0.15	0.03	0.13	0.07	0.01	0.02	0.04	-0.04	-0.08	-0.07	-0.10	-0.03
		34	-	-	-	-	0.10	0.07	0.08	0.07	0.05	0.06	0.03	0.07

- indicates no item comparisons due to introduction of new item

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

		2006							2007						
		With Level of Assistance			Without Level of Assistance				With Level of Assistance			Without Level of Assistance			
Content	Grade	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test
			Points	Difficulty	Correlation	Points	Difficulty	Correlation		Points	Difficulty	Correlation	Points	Difficulty	Correlation
		1	3	0.87	0.61	1	0.83	0.71	1	3	0.89	0.75	1	0.85	0.80
		2	3	0.81	0.61	1	0.75	0.69	2	3	0.86	0.58	1	0.81	0.64
		3	6	0.66	0.74	2	0.55	0.74	3	6	0.76	0.78	2	0.66	0.78
		4	3	0.64	0.59	1	0.56	0.61	4	3	0.63	0.58	1	0.55	0.63
		5	3	0.78	0.57	1	0.74	0.65	5	3	0.80	0.66	1	0.76	0.73
		6	3	0.82	0.58	1	0.76	0.69	6	3	0.82	0.62	1	0.78	0.71
		7	3	0.69	0.50	1	0.62	0.59	7	3	0.78	0.50	1	0.73	0.60
		8	3	0.62	0.45	1	0.57	0.56	8	3	0.64	0.43	1	0.61	0.50
		9	3	0.71	0.60	1	0.65	0.67	9	3	0.72	0.53	1	0.67	0.62
		10	3	0.61	0.58	1	0.53	0.64	10	3	0.72	0.58	1	0.67	0.69
		11	3	0.74	0.61	1	0.69	0.69	11	3	0.76	0.68	1	0.71	0.72
		12	3	0.66	0.52	1	0.62	0.58	12	3	0.73	0.60	1	0.68	0.64
		13	3	0.68	0.71	1	0.61	0.74	13	3	0.66	0.62	1	0.59	0.71
		14	3	0.84	0.66	1	0.78	0.71	14	3	0.84	0.66	1	0.78	0.74
		15	3	0.79	0.76	1	0.75	0.80	15	3	0.83	0.73	1	0.78	0.79
MA	4	16	3	0.74	0.73	1	0.71	0.77	16	3	0.79	0.75	1	0.76	0.80
		17	3	0.79	0.75	1	0.76	0.79	17	3	0.83	0.76	1	0.80	0.82
		18	3	0.76	0.72	1	0.73	0.75	18	3	0.75	0.74	1	0.72	0.80
		19	3	0.63	0.59	1	0.57	0.66	19	3	0.67	0.52	1	0.62	0.60
		20	3	0.49	0.17	1	0.43	0.27	20	3	0.46	0.27	1	0.41	0.35
		21	3	0.79	0.69	1	0.74	0.76	21	3	0.83	0.69	1	0.78	0.76
		22	3	0.62	0.72	1	0.58	0.73	22*	6	0.31	0.41	2	0.26	0.45
		23	3	0.65	0.61	1	0.58	0.67	23	3	0.69	0.66	1	0.60	0.73
		24	3	0.63	0.56	1	0.57	0.65	24	3	0.64	0.57	1	0.58	0.65
		25	3	0.85	0.66	1	0.81	0.74	25	3	0.85	0.55	1	0.81	0.67
		26	3	0.81	0.68	1	0.76	0.75	26	3	0.84	0.72	1	0.79	0.76
		27	3	0.26	0.34	1	0.20	0.41	27*	3	0.32	0.42	1	0.27	0.49
		28	3	0.46	0.47	1	0.38	0.55	28	3	0.48	0.49	1	0.43	0.54
		29	3	0.64	0.67	1	0.57	0.70	29*	6	0.76	0.78	2	0.66	0.76
		30	3	0.63	0.71	1	0.55	0.72	30*	3	0.72	0.76	1	0.66	0.76
		31	3	0.59	0.68	1	0.51	0.69	31*	3	0.69	0.73	1	0.62	0.76

* new item in 2007

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

		2008							2009						
		With Level of Assistance			Without Level of Assistance				With Level of Assistance			Without Level of Assistance			
Content	Grade	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test
		Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points		Difficulty	Correlation	Points	Difficulty	Correlation	
		1	3	0.90	0.58	1	0.87	0.65	1	3	0.90	0.60	1	0.87	0.66
		2	3	0.87	0.54	1	0.83	0.62	2	3	0.87	0.52	1	0.82	0.58
		3	6	0.77	0.70	2	0.65	0.76	3	6	0.81	0.75	2	0.70	0.79
		4	3	0.71	0.55	1	0.63	0.64	4	3	0.70	0.60	1	0.60	0.65
		5	3	0.85	0.67	1	0.82	0.73	5	3	0.85	0.65	1	0.82	0.74
		6	3	0.83	0.58	1	0.80	0.65	6	3	0.83	0.59	1	0.79	0.67
		7	3	0.77	0.52	1	0.73	0.61	7	3	0.80	0.50	1	0.73	0.60
		8	3	0.63	0.44	1	0.59	0.53	8	3	0.64	0.43	1	0.60	0.53
		9	3	0.72	0.63	1	0.68	0.70	9	3	0.75	0.57	1	0.69	0.66
		10	3	0.66	0.62	1	0.63	0.66	10	3	0.75	0.65	1	0.70	0.70
		11	3	0.76	0.60	1	0.72	0.66	11	3	0.79	0.60	1	0.75	0.65
		12	3	0.69	0.65	1	0.66	0.67	12	3	0.71	0.59	1	0.67	0.64
		13	3	0.70	0.69	1	0.63	0.74	13	3	0.67	0.59	1	0.59	0.63
		14	3	0.84	0.65	1	0.78	0.72	14	3	0.84	0.62	1	0.78	0.71
		15	3	0.82	0.72	1	0.79	0.76	15	3	0.85	0.66	1	0.82	0.70
MA	4	16	3	0.78	0.68	1	0.75	0.73	16	3	0.81	0.69	1	0.78	0.72
		17	3	0.83	0.63	1	0.79	0.69	17	3	0.89	0.60	1	0.86	0.66
		18	3	0.78	0.63	1	0.75	0.70	18	3	0.80	0.65	1	0.77	0.70
		19	3	0.70	0.46	1	0.65	0.55	19	3	0.67	0.45	1	0.62	0.55
		20	3	0.53	0.21	1	0.50	0.32	20	3	0.49	0.32	1	0.45	0.38
		21	3	0.86	0.62	1	0.83	0.68	21	3	0.81	0.62	1	0.75	0.68
		22	6	0.71	0.75	2	0.63	0.77	22	6	0.72	0.71	2	0.67	0.76
		23	3	0.73	0.63	1	0.68	0.70	23	3	0.71	0.59	1	0.64	0.67
		24	3	0.74	0.58	1	0.69	0.66	24	3	0.71	0.58	1	0.64	0.68
		25	3	0.85	0.61	1	0.82	0.70	25	3	0.91	0.60	1	0.87	0.68
		26	3	0.88	0.65	1	0.85	0.68	26	3	0.85	0.64	1	0.79	0.72
		27	3	0.39	0.37	1	0.34	0.46	27	3	0.36	0.47	1	0.30	0.50
		28	3	0.51	0.49	1	0.46	0.56	28	3	0.48	0.46	1	0.42	0.53
		29	6	0.71	0.77	2	0.61	0.77	29	6	0.75	0.73	2	0.67	0.78
		30	3	0.69	0.74	1	0.62	0.77	30	3	0.69	0.73	1	0.62	0.76
		31	3	0.62	0.65	1	0.55	0.70	31	3	0.66	0.69	1	0.58	0.71

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008			
			With		Without		With		Without		With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	0.02	0.14	0.02	0.09	0.01	-0.17	0.02	-0.15	0.00	0.02	0.00	0.01
		2	0.05	-0.03	0.06	-0.05	0.01	-0.04	0.02	-0.02	0.00	-0.02	-0.01	-0.04
		3	0.10	0.04	0.11	0.04	0.01	-0.08	-0.01	-0.02	0.04	0.05	0.05	0.03
		4	-0.01	-0.01	-0.01	0.02	0.08	-0.03	0.08	0.01	-0.01	0.05	-0.03	0.01
		5	0.02	0.09	0.02	0.08	0.05	0.01	0.06	0.00	0.00	-0.02	0.00	0.01
		6	0.00	0.04	0.02	0.02	0.01	-0.04	0.02	-0.06	0.00	0.01	-0.01	0.02
		7	0.09	0.00	0.11	0.01	-0.01	0.02	0.00	0.01	0.03	-0.02	0.00	-0.01
		8	0.02	-0.02	0.04	-0.06	-0.01	0.01	-0.02	0.03	0.01	-0.01	0.01	0.00
		9	0.01	-0.07	0.02	-0.05	0.00	0.10	0.01	0.08	0.03	-0.06	0.01	-0.04
		10	0.11	0.00	0.14	0.05	-0.06	0.04	-0.04	-0.03	0.09	0.03	0.07	0.04
		11	0.02	0.07	0.02	0.03	0.00	-0.08	0.01	-0.06	0.03	0.00	0.03	-0.01
		12	0.07	0.08	0.06	0.06	-0.04	0.05	-0.02	0.03	0.02	-0.06	0.01	-0.03
		13	-0.02	-0.09	-0.02	-0.03	0.04	0.07	0.04	0.03	-0.03	-0.10	-0.04	-0.11
		14	0.00	0.00	0.00	0.03	0.00	-0.01	0.00	-0.02	0.00	-0.03	0.00	-0.01
		15	0.04	-0.03	0.03	-0.01	-0.01	-0.01	0.01	-0.03	0.03	-0.06	0.03	-0.06
MA	4	16	0.05	0.02	0.05	0.03	-0.01	-0.07	-0.01	-0.07	0.03	0.01	0.03	-0.01
		17	0.04	0.01	0.04	0.03	0.00	-0.13	-0.01	-0.13	0.06	-0.03	0.07	-0.03
		18	-0.01	0.02	-0.01	0.05	0.03	-0.11	0.03	-0.10	0.02	0.02	0.02	0.00
		19	0.04	-0.07	0.05	-0.06	0.03	-0.06	0.03	-0.05	-0.03	-0.01	-0.03	0.00
		20	-0.03	0.10	-0.02	0.08	0.07	-0.06	0.09	-0.03	-0.04	0.11	-0.05	0.06
		21	0.04	0.00	0.04	0.00	0.03	-0.07	0.05	-0.08	-0.05	0.00	-0.08	0.00
		22	-	-	-	-	0.40	0.34	0.37	0.32	0.01	-0.04	0.04	-0.01
		23	0.04	0.05	0.02	0.06	0.04	-0.03	0.08	-0.03	-0.02	-0.04	-0.04	-0.03
		24	0.01	0.01	0.01	0.00	0.10	0.01	0.11	0.01	-0.03	0.00	-0.05	0.02
		25	0.00	-0.11	0.00	-0.07	0.00	0.06	0.01	0.03	0.06	-0.01	0.05	-0.02
		26	0.03	0.04	0.03	0.01	0.04	-0.07	0.06	-0.08	-0.03	-0.01	-0.06	0.04
		27	-	-	-	-	0.07	-0.05	0.07	-0.03	-0.03	0.10	-0.04	0.04
		28	0.02	0.02	0.05	-0.01	0.03	0.00	0.03	0.02	-0.03	-0.03	-0.04	-0.03
		29	-	-	-	-	-0.05	-0.01	-0.05	0.01	0.04	-0.04	0.06	0.01
		30	-	-	-	-	-0.03	-0.02	-0.04	0.01	0.00	-0.01	0.00	-0.01
		31	-	-	-	-	-0.07	-0.08	-0.07	-0.06	0.04	0.04	0.03	0.01

- indicates no item comparisons due to introduction of new item

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2006						2007						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
MA	5	1	3	0.51	0.66	1	0.44	0.69	1*	3	0.63	0.63	1	0.56	0.67
		2	3	0.66	0.47	1	0.59	0.60	2	3	0.77	0.58	1	0.72	0.67
		3	3	0.64	0.48	1	0.56	0.54	3	3	0.65	0.35	1	0.59	0.44
		4	3	0.78	0.51	1	0.73	0.57	4	3	0.86	0.55	1	0.81	0.68
		5	3	0.66	0.52	1	0.63	0.59	5	3	0.77	0.48	1	0.72	0.60
		6	3	0.47	0.62	1	0.38	0.64	6*	3	0.66	0.64	1	0.58	0.67
		7	3	0.57	0.56	1	0.49	0.62	7	3	0.70	0.55	1	0.63	0.64
		8	3	0.61	0.57	1	0.53	0.63	8	3	0.70	0.65	1	0.64	0.71
		9	3	0.86	0.54	1	0.83	0.60	9	3	0.91	0.54	1	0.88	0.63
		10	3	0.73	0.77	1	0.66	0.77	10*	6	0.83	0.73	2	0.76	0.78
		11	6	0.57	0.74	2	0.43	0.72	11*	6	0.54	0.54	2	0.45	0.55
		12	3	0.77	0.50	1	0.71	0.56	12	3	0.88	0.54	1	0.83	0.64
		13	3	0.72	0.70	1	0.67	0.72	13	3	0.83	0.66	1	0.77	0.74
		14	3	0.55	0.60	1	0.49	0.64	14	3	0.69	0.64	1	0.63	0.69
		15	3	0.68	0.56	1	0.62	0.61	15	3	0.76	0.57	1	0.69	0.63
		16	3	0.78	0.67	1	0.73	0.71	16	3	0.86	0.69	1	0.81	0.76
		17	3	0.74	0.71	1	0.70	0.73	17	3	0.84	0.64	1	0.80	0.70
		18	3	0.75	0.59	1	0.72	0.66	18	3	0.82	0.71	1	0.78	0.77
		19	6	0.61	0.63	2	0.53	0.68	19*	6	0.72	0.67	2	0.67	0.70
		20	3	0.78	0.55	1	0.74	0.60	20	3	0.80	0.46	1	0.76	0.58
		21	3	0.58	0.48	1	0.51	0.54	21	3	0.68	0.47	1	0.61	0.55
		22	3	0.52	0.43	1	0.47	0.50	22	3	0.60	0.57	1	0.54	0.63
		23	3	0.78	0.64	1	0.73	0.68	23	3	0.85	0.66	1	0.81	0.76
		24	3	0.69	0.77	1	0.65	0.81	24*	3	0.80	0.74	1	0.77	0.78
		25	3	0.73	0.73	1	0.70	0.76	25*	3	0.80	0.73	1	0.75	0.79
		26	3	0.76	0.68	1	0.72	0.74	26*	3	0.80	0.74	1	0.76	0.80
		27	3	0.46	0.53	1	0.41	0.58	27	3	0.62	0.57	1	0.56	0.63
		28	3	0.62	0.57	1	0.58	0.63	28	3	0.70	0.63	1	0.65	0.66
		29	3	0.64	0.50	1	0.59	0.59	29	3	0.67	0.61	1	0.62	0.68
		30	3	0.68	0.58	1	0.63	0.64	30	3	0.79	0.55	1	0.74	0.64
		31	3	0.66	0.55	1	0.62	0.62	31	3	0.75	0.56	1	0.71	0.64
		32	3	0.62	0.56	1	0.56	0.58	32	3	0.70	0.55	1	0.63	0.61
		33	3	0.70	0.69	1	0.66	0.73	33	3	0.79	0.65	1	0.75	0.74
		34	3	0.51	0.63	1	0.43	0.66	34*	3	0.65	0.57	1	0.58	0.62
		35	3	0.69	0.60	1	0.61	0.62	35*	3	0.79	0.62	1	0.73	0.68
		36	3	0.59	0.52	1	0.55	0.59	36	3	0.68	0.58	1	0.63	0.61

* new item in 2007

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2008						2009						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
MA	5	1*	6	0.63	0.65	2	0.54	0.66	1	6	0.68	0.73	2	0.56	0.73
		2	3	0.77	0.60	1	0.71	0.70	2	3	0.83	0.59	1	0.79	0.67
		3	3	0.67	0.35	1	0.59	0.51	3	3	0.66	0.31	1	0.62	0.42
		4	3	0.87	0.53	1	0.82	0.65	4	3	0.87	0.62	1	0.83	0.68
		5	3	0.77	0.56	1	0.74	0.66	5	3	0.80	0.53	1	0.75	0.66
		6	3	0.65	0.62	1	0.58	0.67	6	3	0.65	0.59	1	0.58	0.66
		7	3	0.76	0.61	1	0.69	0.70	7	3	0.77	0.54	1	0.71	0.64
		8	3	0.67	0.56	1	0.60	0.64	8	3	0.74	0.64	1	0.68	0.69
		9	3	0.92	0.65	1	0.89	0.75	9	3	0.92	0.54	1	0.89	0.65
		10	6	0.86	0.79	2	0.79	0.84	10	6	0.87	0.79	2	0.80	0.81
		11	6	0.66	0.66	2	0.58	0.66	11	6	0.71	0.64	2	0.59	0.68
		12	3	0.87	0.59	1	0.80	0.69	12	3	0.88	0.48	1	0.84	0.58
		13	3	0.84	0.64	1	0.80	0.74	13	3	0.83	0.77	1	0.79	0.79
		14	3	0.70	0.58	1	0.64	0.68	14	3	0.72	0.54	1	0.67	0.62
		15	3	0.77	0.41	1	0.73	0.52	15	3	0.79	0.57	1	0.74	0.64
		16	3	0.88	0.77	1	0.83	0.84	16	3	0.87	0.66	1	0.82	0.72
		17	3	0.86	0.72	1	0.82	0.80	17	3	0.86	0.75	1	0.83	0.79
		18	3	0.86	0.66	1	0.82	0.77	18	3	0.85	0.70	1	0.82	0.77
		19	6	0.71	0.62	2	0.65	0.67	19	6	0.80	0.71	2	0.72	0.76
		20	3	0.87	0.51	1	0.84	0.64	20	3	0.88	0.50	1	0.85	0.58
		21	3	0.71	0.47	1	0.65	0.59	21	3	0.71	0.46	1	0.64	0.56
		22	3	0.58	0.49	1	0.54	0.56	22	3	0.65	0.53	1	0.61	0.60
		23	3	0.85	0.72	1	0.81	0.80	23	3	0.90	0.66	1	0.86	0.73
		24	3	0.81	0.62	1	0.77	0.73	24	3	0.83	0.66	1	0.80	0.73
		25	3	0.84	0.66	1	0.81	0.75	25	3	0.86	0.66	1	0.83	0.73
		26	3	0.82	0.66	1	0.78	0.74	26	3	0.83	0.66	1	0.80	0.72
		27	3	0.64	0.48	1	0.59	0.53	27	3	0.67	0.58	1	0.63	0.63
		28	3	0.73	0.62	1	0.69	0.66	28	3	0.74	0.63	1	0.70	0.70
		29	3	0.69	0.52	1	0.64	0.61	29	3	0.74	0.63	1	0.71	0.68
		30	3	0.80	0.59	1	0.74	0.70	30	3	0.83	0.65	1	0.78	0.74
		31	3	0.75	0.58	1	0.71	0.68	31	3	0.79	0.61	1	0.75	0.70
		32	3	0.73	0.50	1	0.68	0.56	32	3	0.77	0.50	1	0.70	0.60
		33	3	0.83	0.68	1	0.79	0.76	33	3	0.84	0.63	1	0.79	0.72
		34	3	0.64	0.59	1	0.58	0.63	34	3	0.66	0.59	1	0.58	0.67
		35	3	0.81	0.60	1	0.76	0.70	35	3	0.80	0.55	1	0.74	0.63
		36	3	0.73	0.43	1	0.67	0.56	36	3	0.71	0.60	1	0.67	0.67

* new item in 2008

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008							
			With		Without		With		Without		With		Without					
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation				
		1	–	–	–	–	–	–	–	–	–	–	–	–	0.05	0.08	0.02	0.07
		2	0.11	0.11	0.13	0.07	0.00	0.02	-0.01	0.03	0.06	-0.01	0.08	-0.03	0.06	-0.01	0.08	-0.03
		3	0.01	-0.13	0.03	-0.10	0.02	0.00	0.00	0.07	-0.01	-0.04	0.03	-0.09	0.00	-0.04	0.03	-0.09
		4	0.08	0.04	0.08	0.11	0.01	-0.02	0.01	-0.03	0.00	0.09	0.01	0.03	0.00	0.09	0.01	0.03
		5	0.11	-0.04	0.09	0.01	0.00	0.08	0.02	0.06	0.03	-0.03	0.01	0.00	0.03	-0.03	0.01	0.00
		6	–	–	–	–	-0.01	-0.02	0.00	0.00	0.00	-0.03	0.00	-0.01	0.00	-0.03	0.00	-0.01
		7	0.13	-0.01	0.14	0.02	0.06	0.06	0.06	0.06	0.01	-0.07	0.02	-0.06	0.01	-0.07	0.02	-0.06
		8	0.09	0.08	0.11	0.08	-0.03	-0.09	-0.04	-0.07	0.07	0.08	0.08	0.05	0.07	0.08	0.08	0.05
		9	0.05	0.00	0.05	0.03	0.01	0.11	0.01	0.12	0.00	-0.11	0.00	-0.10	0.00	-0.11	0.00	-0.10
		10	–	–	–	–	0.03	0.06	0.03	0.06	0.01	0.00	0.01	-0.03	0.01	0.00	0.01	-0.03
		11	–	–	–	–	0.12	0.12	0.13	0.11	0.05	-0.02	0.01	0.02	0.05	-0.02	0.01	0.02
		12	0.11	0.04	0.12	0.08	-0.01	0.05	-0.03	0.05	0.01	-0.11	0.04	-0.11	0.01	-0.11	0.04	-0.11
		13	0.11	-0.04	0.10	0.02	0.01	-0.02	0.03	0.00	-0.01	0.13	-0.01	0.05	-0.01	0.13	-0.01	0.05
		14	0.14	0.04	0.14	0.05	0.01	-0.06	0.01	-0.01	0.02	-0.04	0.03	-0.06	0.02	-0.04	0.03	-0.06
		15	0.08	0.01	0.07	0.02	0.01	-0.16	0.04	-0.11	0.02	0.16	0.01	0.12	0.02	0.16	0.01	0.12
		16	0.08	0.02	0.08	0.05	0.02	0.08	0.02	0.08	-0.01	-0.11	-0.01	-0.12	-0.01	-0.11	-0.01	-0.12
		17	0.10	-0.07	0.10	-0.03	0.02	0.08	0.02	0.10	0.00	0.03	0.01	-0.01	0.00	0.03	0.01	-0.01
		18	0.07	0.12	0.06	0.11	0.04	-0.05	0.04	0.00	-0.01	0.04	0.00	0.00	-0.01	0.04	0.00	0.00
MA	5	19	–	–	–	–	-0.01	-0.05	-0.02	-0.03	0.09	0.09	0.07	0.09	0.09	0.09	0.07	0.09
		20	0.02	-0.09	0.02	-0.02	0.07	0.05	0.08	0.06	0.01	-0.01	0.01	-0.06	0.01	-0.01	0.01	-0.06
		21	0.10	-0.01	0.10	0.01	0.03	0.00	0.04	0.04	0.00	-0.01	-0.01	-0.03	0.00	-0.01	-0.01	-0.03
		22	0.08	0.14	0.07	0.13	-0.02	-0.08	0.00	-0.07	0.07	0.04	0.07	0.04	0.07	0.04	0.07	0.04
		23	0.07	0.02	0.08	0.08	0.00	0.06	0.00	0.04	0.05	-0.06	0.05	-0.07	0.05	-0.06	0.05	-0.07
		24	–	–	–	–	0.01	-0.12	0.00	-0.05	0.02	0.04	0.03	0.00	0.02	0.04	0.03	0.00
		25	–	–	–	–	0.04	-0.07	0.06	-0.04	0.02	0.00	0.02	-0.02	0.02	0.00	0.02	-0.02
		26	–	–	–	–	0.02	-0.08	0.02	-0.06	0.01	0.00	0.02	-0.02	0.01	0.00	0.02	-0.02
		27	0.16	0.04	0.15	0.05	0.02	-0.09	0.03	-0.10	0.03	0.10	0.04	0.10	0.03	0.10	0.04	0.10
		28	0.08	0.06	0.07	0.03	0.03	-0.01	0.04	0.00	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.04
		29	0.03	0.11	0.03	0.09	0.02	-0.09	0.02	-0.07	0.05	0.11	0.07	0.07	0.05	0.11	0.07	0.07
		30	0.11	-0.03	0.11	0.00	0.01	0.04	0.00	0.06	0.03	0.06	0.04	0.04	0.03	0.06	0.04	0.04
		31	0.09	0.01	0.09	0.02	0.00	0.02	0.00	0.04	0.04	0.03	0.04	0.02	0.04	0.03	0.04	0.02
		32	0.08	-0.01	0.07	0.03	0.03	-0.05	0.05	-0.05	0.04	0.00	0.02	0.04	0.04	0.00	0.02	0.04
		33	0.09	-0.04	0.09	0.01	0.04	0.03	0.04	0.02	0.01	-0.05	0.00	-0.04	0.01	-0.05	0.00	-0.04
		34	–	–	–	–	-0.01	0.02	0.00	0.01	0.02	0.00	0.04	0.04	0.02	0.00	0.00	0.04
		35	–	–	–	–	0.02	-0.02	0.03	0.02	-0.01	-0.05	-0.02	-0.07	-0.01	-0.05	-0.02	-0.07
		36	0.09	0.06	0.08	0.02	0.05	-0.15	0.04	-0.05	-0.02	0.17	0.00	0.11	-0.02	0.17	0.00	0.11

– indicates no item comparisons due to introduction of new item

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2006						2007						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
		1	3	0.82	0.49	1	0.79	0.56	1	3	0.88	0.47	1	0.85	0.57
		2	3	0.87	0.57	1	0.84	0.67	2	3	0.87	0.60	1	0.84	0.68
		3	3	0.45	0.38	1	0.40	0.45	3	3	0.52	0.40	1	0.47	0.44
		4	3	0.58	0.63	1	0.54	0.65	4*	3	0.67	0.67	1	0.59	0.73
		5	6	0.64	0.51	2	0.40	0.56	5*	3	0.25	0.28	1	0.19	0.31
		6	3	0.78	0.62	1	0.74	0.69	6	3	0.86	0.54	1	0.82	0.62
		7	3	0.56	0.28	1	0.52	0.36	7	3	0.54	0.35	1	0.49	0.40
		8	3	0.77	0.72	1	0.73	0.79	8	3	0.77	0.73	1	0.73	0.77
		9	3	0.72	0.71	1	0.69	0.75	9	3	0.78	0.71	1	0.74	0.75
		10	3	0.78	0.70	1	0.73	0.77	10	3	0.78	0.69	1	0.74	0.73
		11	3	0.73	0.54	1	0.70	0.63	11*	3	0.69	0.53	1	0.65	0.59
		12*	–	–	–	–	–	–	12*	3	0.75	0.59	1	0.66	0.64
		13	3	0.65	0.57	1	0.57	0.63	–	–	–	–	–	–	–
		14	3	0.72	0.59	1	0.67	0.66	13	3	0.74	0.60	1	0.68	0.67
		15	3	0.71	0.58	1	0.65	0.67	14	3	0.73	0.59	1	0.66	0.62
		16	3	0.65	0.67	1	0.57	0.72	15	3	0.69	0.69	1	0.63	0.75
MA	6	17	3	0.77	0.65	1	0.70	0.73	16	3	0.78	0.66	1	0.71	0.76
		18	3	0.69	0.55	1	0.64	0.63	17*	3	0.72	0.63	1	0.68	0.73
		19	3	0.65	0.66	1	0.61	0.73	18	3	0.66	0.67	1	0.63	0.71
		20	3	0.44	0.38	1	0.34	0.47	19*	3	0.44	0.40	1	0.34	0.43
		21	3	0.62	0.48	1	0.51	0.57	20*	3	0.65	0.61	1	0.55	0.62
		22	3	0.47	0.56	1	0.40	0.60	21*	3	0.51	0.52	1	0.45	0.58
		23	3	0.54	0.30	1	0.45	0.43	22	3	0.52	0.34	1	0.46	0.38
		24	3	0.53	0.37	1	0.47	0.47	23	3	0.52	0.30	1	0.48	0.35
		25	3	0.80	0.51	1	0.75	0.63	24	3	0.82	0.49	1	0.76	0.59
		26	3	0.77	0.60	1	0.72	0.68	25	3	0.73	0.67	1	0.68	0.72
		27	3	0.74	0.59	1	0.70	0.69	26	3	0.73	0.61	1	0.68	0.65
		28	3	0.72	0.72	1	0.68	0.78	27	3	0.75	0.58	1	0.71	0.61
		–	–	–	–	–	–	–	28*	6	0.71	0.50	2	0.59	0.54
		29*	–	–	–	–	–	–	29	3	0.76	0.50	1	0.73	0.56
		30	6	0.64	0.50	2	0.52	0.53	–	–	–	–	–	–	–
		31	3	0.61	0.23	1	0.55	0.35	30	3	0.57	0.30	1	0.54	0.36
		32	3	0.45	0.35	1	0.40	0.42	31*	6	0.42	0.48	2	0.30	0.45

*item suppressed in 2006

* new item in 2007

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2008						2009							
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance				
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test		
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation					
MA	6	1	3	0.88	0.45	1	0.84	0.59	1	3	0.87	0.47	1	0.83	0.56	
		2	3	0.70	0.13	1	0.67	0.30	2	3	1.00	0.10	1	1.00	0.12	
		3	3	0.51	0.33	1	0.48	0.41	3	3	0.51	0.40	1	0.48	0.47	
		4	3	0.71	0.65	1	0.67	0.67	4	3	0.53	0.51	1	0.49	0.60	
		5	3	0.28	0.30	1	0.23	0.36	5	3	0.29	0.38	1	0.21	0.45	
		6	3	0.85	0.53	1	0.82	0.65	6	3	0.87	0.60	1	0.83	0.69	
		7	3	0.57	0.43	1	0.53	0.47	7	3	0.57	0.36	1	0.52	0.42	
		8	3	0.82	0.68	1	0.78	0.73	8	3	0.83	0.68	1	0.78	0.78	
		9	3	0.77	0.53	1	0.73	0.62	9	3	0.80	0.73	1	0.76	0.81	
		10	3	0.78	0.62	1	0.74	0.68	10	3	0.78	0.66	1	0.73	0.76	
		11	3	0.72	0.65	1	0.69	0.67	11	3	0.74	0.56	1	0.68	0.65	
		12	3	0.79	0.60	1	0.72	0.64	12	3	0.76	0.55	1	0.68	0.63	
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		13	3	0.66	0.46	1	0.61	0.54	13	3	0.75	0.46	1	0.68	0.62	
		14	3	0.71	0.50	1	0.66	0.57	14	3	0.76	0.47	1	0.70	0.63	
		15	3	0.74	0.71	1	0.69	0.73	15	3	0.69	0.69	1	0.62	0.74	
		16	3	0.81	0.51	1	0.76	0.60	16	3	0.81	0.65	1	0.74	0.74	
		17	3	0.73	0.54	1	0.70	0.62	17	3	0.73	0.61	1	0.67	0.71	
		18	3	0.63	0.60	1	0.59	0.64	18	3	0.69	0.59	1	0.63	0.66	
		19	3	0.42	0.41	1	0.34	0.45	19	3	0.46	0.45	1	0.40	0.49	
		20	3	0.60	0.58	1	0.54	0.59	20	3	0.63	0.62	1	0.53	0.66	
		21	3	0.52	0.58	1	0.46	0.60	21	3	0.52	0.60	1	0.43	0.62	
		22	3	0.49	0.31	1	0.44	0.39	22	3	0.48	0.38	1	0.41	0.47	
		23	3	0.51	0.31	1	0.45	0.39	23	3	0.50	0.40	1	0.43	0.49	
		24	3	0.82	0.51	1	0.78	0.61	24	3	0.78	0.56	1	0.72	0.62	
		25	3	0.78	0.70	1	0.73	0.75	25	3	0.76	0.62	1	0.70	0.67	
		26	3	0.76	0.66	1	0.72	0.68	26	3	0.74	0.61	1	0.70	0.66	
		27	3	0.78	0.68	1	0.75	0.73	27	3	0.77	0.60	1	0.71	0.69	
		28	6	0.75	0.49	2	0.65	0.51	28	6	0.74	0.54	2	0.63	0.64	
		29	3	0.75	0.49	1	0.70	0.59	29	3	0.76	0.56	1	0.71	0.65	
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	3	0.58	0.36	1	0.54	0.43	30	3	0.56	0.31	1	0.52	0.38			
31	6	0.59	0.55	2	0.42	0.52	31	6	0.65	0.65	2	0.51	0.65			

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008			
			With		Without		With		Without		With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	0.06	-0.02	0.06	0.01	0.00	-0.02	-0.01	0.02	-0.01	0.02	-0.01	-0.03
		2	0.00	0.03	0.00	0.01	-0.17	-0.47	-0.17	-0.38	0.30	-0.03	0.33	-0.18
		3	0.07	0.02	0.07	-0.01	-0.01	-0.07	0.01	-0.03	0.00	0.07	0.00	0.06
		4	-	-	-	-	0.04	-0.02	0.08	-0.06	-0.18	-0.14	-0.18	-0.07
		5	-	-	-	-	0.03	0.02	0.04	0.05	0.01	0.08	-0.02	0.09
		6	0.08	-0.08	0.08	-0.07	-0.01	-0.01	0.00	0.03	0.02	0.07	0.01	0.04
		7	-0.02	0.07	-0.03	0.04	0.03	0.08	0.04	0.07	0.00	-0.07	-0.01	-0.05
		8	0.00	0.01	0.00	-0.02	0.05	-0.05	0.05	-0.04	0.01	0.00	0.00	0.05
		9	0.06	0.00	0.05	0.00	-0.01	-0.18	-0.01	-0.13	0.03	0.20	0.03	0.19
		10	0.00	-0.01	0.01	-0.04	0.00	-0.07	0.00	-0.05	0.00	0.04	-0.01	0.08
		11	-	-	-	-	0.03	0.12	0.04	0.08	0.02	-0.09	-0.01	-0.02
		12	-	-	-	-	0.04	0.01	0.06	0.00	-0.03	-0.05	-0.04	-0.01
			-	-	-	-	-	-	-	-	-	-	-	-
		13	0.02	0.01	0.01	0.01	-0.08	-0.14	-0.07	-0.13	0.09	0.00	0.07	0.08
		14	0.02	0.01	0.01	-0.05	-0.02	-0.09	0.00	-0.05	0.05	-0.03	0.04	0.06
		15	0.04	0.02	0.06	0.03	0.05	0.02	0.06	-0.02	-0.05	-0.02	-0.07	0.01
MA	6	16	0.01	0.01	0.01	0.03	0.03	-0.15	0.05	-0.16	0.00	0.14	-0.02	0.14
		17	-	-	-	-	0.01	-0.09	0.02	-0.11	0.00	0.07	-0.03	0.09
		18	0.01	0.01	0.02	-0.02	-0.03	-0.07	-0.04	-0.07	0.06	-0.01	0.04	0.02
		19	0.00	0.02	0.00	-0.04	-0.02	0.01	0.00	0.02	0.04	0.04	0.06	0.04
		20	-	-	-	-	-0.05	-0.03	-0.01	-0.03	0.03	0.04	-0.01	0.07
		21	-	-	-	-	0.01	0.06	0.01	0.02	0.00	0.02	-0.03	0.02
		22	-0.02	0.04	0.01	-0.05	-0.03	-0.03	-0.02	0.01	-0.01	0.07	-0.03	0.08
		23	-0.01	-0.07	0.01	-0.12	-0.01	0.01	-0.03	0.04	-0.01	0.09	-0.02	0.10
		24	0.02	-0.02	0.01	-0.04	0.00	0.02	0.02	0.02	-0.04	0.05	-0.06	0.01
		25	-0.04	0.07	-0.04	0.04	0.05	0.03	0.05	0.03	-0.02	-0.08	-0.03	-0.08
		26	-0.01	0.02	-0.02	-0.04	0.03	0.05	0.04	0.03	-0.02	-0.05	-0.02	-0.02
		27	0.03	-0.14	0.03	-0.17	0.03	0.10	0.04	0.12	-0.01	-0.08	-0.04	-0.04
		28	-	-	-	-	0.04	-0.01	0.06	-0.03	-0.01	0.05	-0.02	0.13
		29	-	-	-	-	-0.01	-0.01	-0.03	0.03	0.01	0.07	0.01	0.06
			-	-	-	-	-	-	-	-	-	-	-	-
		30	-0.04	0.07	-0.01	0.01	0.01	0.06	0.00	0.07	-0.02	-0.05	-0.02	-0.05
		31	-	-	-	-	0.17	0.07	0.12	0.07	0.06	0.10	0.09	0.13

- indicates no item comparisons due to introduction of new item

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2006						2007						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
MA	7	1	3	0.87	0.56	1	0.81	0.65	1	3	0.91	0.40	1	0.89	0.50
		2	3	0.71	0.40	1	0.66	0.47	2	3	0.78	0.42	1	0.74	0.51
		3	3	0.62	0.56	1	0.59	0.62	3	3	0.71	0.42	1	0.67	0.53
		4	3	0.85	0.58	1	0.81	0.68	4	3	0.89	0.50	1	0.86	0.64
		5	3	0.68	0.51	1	0.65	0.59	5*	3	0.79	0.58	1	0.75	0.62
		6	3	0.75	0.44	1	0.73	0.52	6*	3	0.82	0.50	1	0.78	0.62
		7	3	0.86	0.60	1	0.81	0.68	7*	3	0.33	0.38	1	0.28	0.42
		8	3	0.86	0.59	1	0.81	0.69	8	3	0.90	0.52	1	0.87	0.62
		9	3	0.57	0.59	1	0.50	0.62	9*	3	0.65	0.56	1	0.58	0.61
		10	3	0.42	0.39	1	0.37	0.42	10	3	0.51	0.49	1	0.44	0.51
		11	3	0.86	0.53	1	0.84	0.58	11	3	0.91	0.49	1	0.88	0.60
		12	3	0.60	0.60	1	0.52	0.63	12	3	0.67	0.60	1	0.60	0.62
		13	3	0.50	0.44	1	0.45	0.46	13	3	0.59	0.46	1	0.54	0.47
		14	3	0.54	0.52	1	0.50	0.53	14	3	0.67	0.46	1	0.64	0.51
		15	3	0.82	0.59	1	0.78	0.64	15	3	0.90	0.60	1	0.87	0.76
		16	3	0.79	0.56	1	0.75	0.62	16	3	0.87	0.56	1	0.83	0.69
		17	3	0.76	0.58	1	0.71	0.65	17	3	0.81	0.51	1	0.75	0.63
		18	3	0.68	0.63	1	0.63	0.66	18	3	0.79	0.63	1	0.75	0.72
		19	3	0.45	0.59	1	0.39	0.59	19*	3	0.56	0.55	1	0.49	0.58
		20	3	0.57	0.48	1	0.47	0.53	20*	3	0.66	0.53	1	0.57	0.57
		21	3	0.61	0.49	1	0.50	0.57	21	3	0.69	0.44	1	0.57	0.49
		22	3	0.39	0.43	1	0.34	0.47	22	3	0.46	0.47	1	0.41	0.52
		23	3	0.44	0.50	1	0.39	0.52	23	3	0.52	0.51	1	0.47	0.54
		24	3	0.56	0.37	1	0.49	0.44	24	3	0.56	0.42	1	0.52	0.49
		25	3	0.63	0.61	1	0.56	0.63	25	3	0.69	0.51	1	0.61	0.58
		26	3	0.86	0.59	1	0.83	0.65	26	3	0.94	0.49	1	0.91	0.54
		27	3	0.85	0.51	1	0.80	0.59	27	3	0.89	0.38	1	0.85	0.51
		28	3	0.37	0.16	1	0.33	0.16	28	3	0.38	0.22	1	0.33	0.24
		29	3	0.26	0.10	1	0.22	0.15	29	3	0.24	0.25	1	0.20	0.28
		30	3	0.42	0.35	1	0.34	0.38	30	3	0.46	0.33	1	0.38	0.32
		31	3	0.77	0.59	1	0.73	0.65	31*	3	0.87	0.49	1	0.83	0.62

* new item in 2007

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2008						2009						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
MA	7	1	3	0.90	0.49	1	0.86	0.60	1	3	0.91	0.51	1	0.86	0.68
		2	3	0.77	0.52	1	0.72	0.62	2	3	0.76	0.39	1	0.71	0.52
		3	3	0.72	0.55	1	0.68	0.65	3	3	0.73	0.50	1	0.71	0.60
		4	3	0.89	0.49	1	0.85	0.61	4	3	0.90	0.55	1	0.87	0.68
		5	3	0.76	0.57	1	0.71	0.63	5	3	0.75	0.63	1	0.73	0.68
		6	3	0.80	0.54	1	0.77	0.61	6	3	0.82	0.57	1	0.79	0.63
		7*	6	0.31	0.41	2	0.27	0.44	7	6	0.31	0.43	2	0.27	0.44
		8	3	0.88	0.55	1	0.84	0.69	8	3	0.92	0.51	1	0.88	0.63
		9	3	0.62	0.58	1	0.55	0.61	9	3	0.66	0.66	1	0.60	0.69
		10	3	0.53	0.42	1	0.47	0.47	10	3	0.53	0.45	1	0.48	0.44
		11	3	0.93	0.45	1	0.88	0.59	11	3	0.92	0.49	1	0.89	0.60
		12	3	0.66	0.61	1	0.60	0.66	12	3	0.68	0.55	1	0.61	0.59
		13	3	0.64	0.46	1	0.59	0.52	13	3	0.63	0.47	1	0.59	0.48
		14	3	0.71	0.50	1	0.68	0.57	14	3	0.75	0.48	1	0.72	0.52
		15	3	0.87	0.63	1	0.82	0.76	15	3	0.87	0.57	1	0.84	0.69
		16	3	0.83	0.63	1	0.79	0.74	16	3	0.87	0.64	1	0.83	0.74
		17	3	0.79	0.64	1	0.75	0.70	17	3	0.78	0.56	1	0.73	0.65
		18	3	0.74	0.57	1	0.70	0.66	18	3	0.79	0.52	1	0.75	0.62
		19	3	0.54	0.65	1	0.47	0.63	19	3	0.55	0.62	1	0.50	0.63
		20	3	0.59	0.55	1	0.49	0.60	20	3	0.64	0.63	1	0.55	0.62
		21	3	0.63	0.41	1	0.52	0.52	21	3	0.68	0.50	1	0.62	0.54
		22	3	0.46	0.43	1	0.41	0.49	22	3	0.53	0.50	1	0.48	0.55
		23	3	0.47	0.47	1	0.43	0.53	23	3	0.61	0.54	1	0.56	0.58
		24	3	0.55	0.40	1	0.49	0.52	24	3	0.64	0.47	1	0.59	0.53
		25	3	0.68	0.60	1	0.61	0.66	25	3	0.66	0.53	1	0.61	0.55
		26	3	0.88	0.49	1	0.84	0.61	26	3	0.90	0.56	1	0.87	0.68
		27	3	0.86	0.47	1	0.83	0.61	27	3	0.89	0.48	1	0.85	0.62
		28**	–	–	–	–	–	–	28	3	0.35	0.15	1	0.32	0.21
		29**	–	–	–	–	–	–	29	3	0.26	0.18	1	0.22	0.25
		30	3	0.37	0.25	1	0.31	0.35	30	3	0.45	0.35	1	0.37	0.38
		31	3	0.83	0.46	1	0.79	0.57	31	3	0.87	0.50	1	0.83	0.61

* new item in 2008

** suppressed in 2008

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008			
			With		Without		With		Without		With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	0.04	-0.16	0.08	-0.15	-0.01	0.09	-0.03	0.10	0.01	0.02	0.00	0.08
		2	0.07	0.02	0.08	0.04	-0.01	0.10	-0.02	0.11	-0.01	-0.13	-0.01	-0.10
		3	0.09	-0.14	0.08	-0.09	0.01	0.13	0.01	0.12	0.01	-0.05	0.03	-0.05
		4	0.04	-0.08	0.05	-0.04	0.00	-0.01	-0.01	-0.03	0.01	0.06	0.02	0.07
		5	–	–	–	–	-0.03	-0.01	-0.04	0.01	-0.01	0.06	0.02	0.05
		6	–	–	–	–	-0.02	0.04	-0.01	-0.01	0.02	0.03	0.02	0.02
		7	–	–	–	–	–	–	–	–	0.00	0.02	0.00	0.00
		8	0.04	-0.07	0.06	-0.07	-0.02	0.03	-0.03	0.07	0.04	-0.04	0.04	-0.06
		9	–	–	–	–	-0.03	0.02	-0.03	0.00	0.04	0.08	0.05	0.08
		10	0.09	0.10	0.07	0.09	0.02	-0.07	0.03	-0.04	0.00	0.03	0.01	-0.03
		11	0.05	-0.04	0.04	0.02	0.02	-0.04	0.00	-0.01	-0.01	0.04	0.01	0.01
		12	0.07	0.00	0.08	-0.01	-0.01	0.01	0.00	0.04	0.02	-0.06	0.01	-0.07
		13	0.09	0.02	0.09	0.01	0.05	0.00	0.05	0.05	-0.01	0.01	0.00	-0.04
		14	0.13	-0.06	0.14	-0.02	0.04	0.04	0.04	0.06	0.04	-0.02	0.04	-0.05
		15	0.08	0.01	0.09	0.12	-0.03	0.03	-0.05	0.00	0.00	-0.06	0.02	-0.07
MA	7	16	0.08	0.00	0.08	0.07	-0.04	0.07	-0.04	0.05	0.04	0.01	0.04	0.00
		17	0.05	-0.07	0.04	-0.02	-0.02	0.13	0.00	0.07	-0.01	-0.08	-0.02	-0.05
		18	0.11	0.00	0.12	0.06	-0.05	-0.06	-0.05	-0.06	0.05	-0.05	0.05	-0.04
		19	–	–	–	–	-0.02	0.10	-0.02	0.05	0.01	-0.03	0.03	0.00
		20	–	–	–	–	-0.07	0.02	-0.08	0.03	0.05	0.08	0.06	0.02
		21	0.08	-0.05	0.07	-0.08	-0.06	-0.03	-0.05	0.03	0.05	0.09	0.10	0.02
		22	0.07	0.04	0.07	0.05	0.00	-0.04	0.00	-0.03	0.07	0.07	0.07	0.06
		23	0.08	0.01	0.08	0.02	-0.05	-0.04	-0.04	-0.01	0.14	0.07	0.13	0.05
		24	0.00	0.05	0.03	0.05	-0.01	-0.02	-0.03	0.03	0.09	0.07	0.10	0.01
		25	0.06	-0.10	0.05	-0.05	-0.01	0.09	0.00	0.08	-0.02	-0.07	0.00	-0.11
		26	0.08	-0.10	0.08	-0.11	-0.06	0.00	-0.07	0.07	0.02	0.07	0.03	0.07
		27	0.04	-0.13	0.05	-0.08	-0.03	0.09	-0.02	0.10	0.03	0.01	0.02	0.01
		28	0.01	0.06	0.00	0.08	–	–	–	–	–	–	–	–
		29	-0.02	0.15	-0.02	0.13	–	–	–	–	–	–	–	–
		30	0.04	-0.02	0.04	-0.06	-0.09	-0.08	-0.07	0.03	0.08	0.10	0.06	0.03
		31	–	–	–	–	-0.04	-0.03	-0.04	-0.05	0.04	0.04	0.04	0.04

– indicates no item comparisons due to introduction of new/suppressed item

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

		2006						2007							
		With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance				
Content	Grade	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test
			Points	Difficulty	Correlation	Points	Difficulty	Correlation		Points	Difficulty	Correlation	Points	Difficulty	Correlation
		1	3	0.63	0.38	1	0.59	0.42	1*	3	0.70	0.29	1	0.66	0.32
		2	3	0.90	0.51	1	0.88	0.57	2	3	0.93	0.41	1	0.91	0.53
		3	3	0.84	0.46	1	0.82	0.52	3	3	0.87	0.44	1	0.84	0.54
		4	3	0.57	0.33	1	0.55	0.34	4	3	0.68	0.28	1	0.65	0.30
		5	3	0.61	0.49	1	0.54	0.50	5	3	0.59	0.43	1	0.54	0.50
		6	3	0.78	0.63	1	0.72	0.68	6	3	0.80	0.57	1	0.76	0.64
		7	3	0.52	0.60	1	0.46	0.61	7*	3	0.55	0.50	1	0.47	0.52
		8	3	0.29	0.17	1	0.23	0.22	8	3	0.33	0.21	1	0.25	0.24
		9	3	0.68	0.61	1	0.64	0.65	9	3	0.79	0.59	1	0.75	0.68
		10	3	0.58	0.44	1	0.55	0.47	10	3	0.69	0.48	1	0.64	0.54
		11	3	0.42	0.51	1	0.36	0.50	11	3	0.49	0.49	1	0.40	0.50
		12	3	0.55	0.31	1	0.50	0.34	12	3	0.62	0.33	1	0.57	0.37
		13	3	0.70	0.66	1	0.65	0.72	13	3	0.68	0.45	1	0.63	0.53
		14	3	0.68	0.65	1	0.64	0.70	14	3	0.71	0.47	1	0.66	0.54
		15	3	0.71	0.54	1	0.67	0.59	15	3	0.73	0.44	1	0.69	0.53
		16	3	0.57	0.37	1	0.52	0.41	16	3	0.56	0.39	1	0.49	0.46
		17	3	0.46	0.66	1	0.39	0.65	17*	3	0.47	0.63	1	0.40	0.62
		18	3	0.42	0.65	1	0.37	0.65	18*	3	0.47	0.62	1	0.40	0.61
		19	3	0.46	0.67	1	0.40	0.66	19*	3	0.47	0.61	1	0.40	0.61
MA	8	20	3	0.41	0.65	1	0.36	0.64	20*	3	0.44	0.59	1	0.38	0.58
		21	3	0.36	0.34	1	0.28	0.36	21	3	0.42	0.37	1	0.34	0.37
		22	3	0.65	0.48	1	0.59	0.49	22	3	0.62	0.43	1	0.53	0.49
		23	3	0.53	0.51	1	0.48	0.52	23	3	0.54	0.45	1	0.49	0.47
		24	3	0.57	0.42	1	0.51	0.48	24	3	0.55	0.39	1	0.48	0.44
		25	3	0.82	0.64	1	0.81	0.68	25*	3	0.88	0.52	1	0.86	0.62
		26	3	0.82	0.67	1	0.80	0.71	26*	3	0.87	0.51	1	0.85	0.61
		27	3	0.84	0.58	1	0.82	0.64	27*	3	0.84	0.47	1	0.82	0.60
		28	3	0.88	0.61	1	0.85	0.64	28	3	0.90	0.47	1	0.87	0.59
		29	3	0.30	0.56	1	0.21	0.49	29*	3	0.34	0.41	1	0.23	0.42
		30	3	0.53	0.52	1	0.47	0.54	30*	3	0.58	0.51	1	0.50	0.53
		31	3	0.81	0.59	1	0.80	0.60	31	3	0.88	0.32	1	0.84	0.43
		32	3	0.62	0.56	1	0.57	0.55	32	3	0.66	0.43	1	0.59	0.49
		33	3	0.78	0.56	1	0.73	0.61	33*	3	0.74	0.47	1	0.69	0.50
		34	3	0.48	0.21	1	0.43	0.24	34	3	0.47	0.26	1	0.38	0.30
		35	3	0.80	0.55	1	0.78	0.61	35	3	0.88	0.55	1	0.86	0.60
		36	3	0.67	0.45	1	0.63	0.52	36	3	0.72	0.45	1	0.66	0.53
		37	3	0.38	0.24	1	0.33	0.32	37	3	0.34	0.14	1	0.28	0.18
		38	3	0.81	0.61	1	0.76	0.66	38*	3	0.83	0.58	1	0.80	0.63

* new item in 2007

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	2008						2009							
		With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance				
		Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test		
Item	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Item	Points	Difficulty	Correlation	Points	Difficulty	Correlation		
		1	3	0.72	0.35	1	0.69	0.39	1	3	0.75	0.32	1	0.71	0.39
		2	3	0.93	0.47	1	0.91	0.56	2	3	0.92	0.38	1	0.89	0.58
		3	3	0.84	0.48	1	0.81	0.56	3	3	0.89	0.38	1	0.86	0.56
		4	3	0.67	0.39	1	0.64	0.39	4	3	0.65	0.32	1	0.62	0.39
		5	3	0.65	0.49	1	0.58	0.52	5	3	0.67	0.48	1	0.61	0.53
		6	3	0.85	0.57	1	0.80	0.67	6	3	0.79	0.56	1	0.75	0.66
		7	3	0.56	0.46	1	0.48	0.49	7	3	0.54	0.54	1	0.48	0.54
		8	3	0.34	0.23	1	0.30	0.29	8	3	0.30	0.13	1	0.25	0.19
		9	3	0.84	0.56	1	0.80	0.66	9	3	0.82	0.52	1	0.79	0.62
		10	3	0.75	0.38	1	0.71	0.47	10	3	0.71	0.44	1	0.67	0.50
		11	3	0.53	0.54	1	0.47	0.57	11	3	0.51	0.60	1	0.45	0.58
		12	3	0.60	0.24	1	0.56	0.31	12	3	0.64	0.25	1	0.59	0.34
		13	3	0.74	0.51	1	0.68	0.63	13	3	0.69	0.44	1	0.64	0.52
		14	3	0.76	0.49	1	0.73	0.59	14	3	0.67	0.50	1	0.63	0.55
		15	3	0.73	0.47	1	0.69	0.57	15	3	0.70	0.39	1	0.66	0.47
		16	3	0.65	0.37	1	0.59	0.44	16	3	0.61	0.31	1	0.54	0.38
		17	3	0.53	0.60	1	0.47	0.62	17	3	0.54	0.65	1	0.49	0.65
		18	3	0.55	0.60	1	0.50	0.62	18	3	0.53	0.64	1	0.48	0.64
MA	8	19	3	0.52	0.57	1	0.47	0.59	19	3	0.54	0.63	1	0.49	0.64
		20	3	0.52	0.62	1	0.47	0.63	20	3	0.52	0.64	1	0.48	0.64
		21	3	0.40	0.40	1	0.35	0.44	21	3	0.38	0.44	1	0.32	0.42
		22	3	0.67	0.50	1	0.62	0.55	22	3	0.61	0.46	1	0.55	0.50
		23	3	0.60	0.36	1	0.55	0.45	23	3	0.59	0.35	1	0.54	0.41
		24	3	0.59	0.45	1	0.52	0.50	24	3	0.55	0.40	1	0.51	0.45
		25	3	0.89	0.55	1	0.86	0.70	25	3	0.86	0.48	1	0.84	0.62
		26	3	0.88	0.54	1	0.85	0.66	26	3	0.86	0.48	1	0.84	0.60
		27	3	0.86	0.44	1	0.83	0.61	27	3	0.85	0.49	1	0.83	0.61
		28	3	0.90	0.46	1	0.86	0.60	28	3	0.90	0.41	1	0.87	0.54
		29	3	0.32	0.50	1	0.22	0.42	29	3	0.39	0.50	1	0.29	0.43
		30	3	0.57	0.50	1	0.52	0.53	30	3	0.58	0.53	1	0.53	0.54
		31	3	0.89	0.41	1	0.86	0.54	31	3	0.88	0.38	1	0.84	0.51
		32	3	0.61	0.47	1	0.55	0.51	32	3	0.70	0.55	1	0.63	0.60
		33	3	0.75	0.43	1	0.71	0.51	33	3	0.79	0.48	1	0.73	0.58
		34	3	0.47	0.34	1	0.41	0.36	34	3	0.46	0.24	1	0.40	0.32
		35	3	0.88	0.51	1	0.85	0.62	35	3	0.90	0.52	1	0.87	0.64
		36	3	0.73	0.40	1	0.68	0.53	36	3	0.70	0.32	1	0.66	0.42
		37	3	0.35	0.20	1	0.30	0.25	37	3	0.36	0.15	1	0.32	0.18
		38	3	0.82	0.49	1	0.79	0.58	38	3	0.85	0.51	1	0.80	0.63

Table 45
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Mathematics (continued)

Content	Grade	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008				
		With		Without		With		Without		With		Without		
		Item	Item-Test	Item	Item-Test	Item	Item-Test	Item	Item-Test	Item	Item-Test	Item	Item-Test	
		Difficulty	Correlation	Difficulty	Correlation	Difficulty	Correlation	Difficulty	Correlation	Difficulty	Correlation	Difficulty	Correlation	
		1	-	-	-	-	0.02	0.06	0.03	0.07	0.03	-0.03	0.02	0.00
		2	0.03	-0.10	0.03	-0.04	0.00	0.06	0.00	0.03	-0.01	-0.09	-0.02	0.02
		3	0.03	-0.02	0.02	0.02	-0.03	0.04	-0.03	0.02	0.05	-0.10	0.05	0.00
		4	0.11	-0.05	0.10	-0.04	-0.01	0.11	-0.01	0.09	-0.02	-0.07	-0.02	0.00
		5	-0.02	-0.06	0.00	0.00	0.06	0.06	0.04	0.02	0.02	-0.01	0.03	0.01
		6	0.02	-0.06	0.04	-0.04	0.05	0.00	0.04	0.03	-0.06	-0.01	-0.05	-0.01
		7	-	-	-	-	0.01	-0.04	0.01	-0.03	-0.02	0.08	0.00	0.05
		8	0.04	0.04	0.02	0.02	0.01	0.02	0.05	0.05	-0.04	-0.10	-0.05	-0.10
		9	0.11	-0.02	0.11	0.03	0.05	-0.03	0.05	-0.02	-0.02	-0.04	-0.01	-0.04
		10	0.11	0.04	0.09	0.07	0.06	-0.10	0.07	-0.07	-0.04	0.06	-0.04	0.03
		11	0.07	-0.02	0.04	0.00	0.04	0.05	0.07	0.07	-0.02	0.06	-0.02	0.01
		12	0.07	0.02	0.07	0.03	-0.02	-0.09	-0.01	-0.06	0.04	0.01	0.03	0.03
		13	-0.02	-0.21	-0.02	-0.19	0.06	0.06	0.05	0.10	-0.05	-0.07	-0.04	-0.11
		14	0.03	-0.18	0.02	-0.16	0.05	0.02	0.07	0.05	-0.09	0.01	-0.10	-0.04
		15	0.02	-0.10	0.02	-0.06	0.00	0.03	0.00	0.04	-0.03	-0.08	-0.03	-0.10
		16	-0.01	0.02	-0.03	0.05	0.09	-0.02	0.10	-0.02	-0.04	-0.06	-0.05	-0.06
		17	-	-	-	-	0.06	-0.03	0.07	0.00	0.01	0.05	0.02	0.03
		18	-	-	-	-	0.08	-0.02	0.10	0.01	-0.02	0.04	-0.02	0.02
		19	-	-	-	-	0.05	-0.04	0.07	-0.02	0.02	0.06	0.02	0.05
MA	8	20	-	-	-	-	0.08	0.03	0.09	0.05	0.00	0.02	0.01	0.01
		21	0.06	0.03	0.06	0.01	-0.02	0.03	0.01	0.07	-0.02	0.04	-0.03	-0.02
		22	-0.03	-0.05	-0.06	0.00	0.05	0.07	0.09	0.06	-0.06	-0.04	-0.07	-0.05
		23	0.01	-0.06	0.01	-0.05	0.06	-0.09	0.06	-0.02	-0.01	-0.01	-0.01	-0.04
		24	-0.02	-0.03	-0.03	-0.04	0.04	0.06	0.04	0.06	-0.04	-0.05	-0.01	-0.05
		25	-	-	-	-	0.01	0.03	0.00	0.08	-0.03	-0.07	-0.02	-0.08
		26	-	-	-	-	0.01	0.03	0.00	0.05	-0.02	-0.06	-0.01	-0.06
		27	-	-	-	-	0.02	-0.03	0.01	0.01	-0.01	0.05	0.00	0.00
		28	0.02	-0.14	0.02	-0.05	0.00	-0.01	-0.01	0.01	0.00	-0.05	0.01	-0.06
		29	-	-	-	-	-0.02	0.09	-0.01	0.00	0.07	0.00	0.07	0.01
		30	-	-	-	-	-0.01	-0.01	0.02	0.00	0.01	0.03	0.01	0.01
		31	0.07	-0.27	0.04	-0.17	0.01	0.09	0.02	0.11	-0.01	-0.03	-0.02	-0.03
		32	0.04	-0.13	0.02	-0.06	-0.05	0.04	-0.04	0.02	0.09	0.08	0.08	0.09
		33	-	-	-	-	0.01	-0.04	0.02	0.01	0.04	0.05	0.02	0.07
		34	-0.01	0.05	-0.05	0.06	0.00	0.08	0.03	0.06	-0.01	-0.10	-0.01	-0.04
		35	0.08	0.00	0.08	-0.01	0.00	-0.04	-0.01	0.02	0.02	0.01	0.02	0.02
		36	0.05	0.00	0.03	0.01	0.01	-0.05	0.02	0.00	-0.03	-0.08	-0.02	-0.11
		37	-0.04	-0.10	-0.05	-0.14	0.01	0.06	0.02	0.07	0.01	-0.05	0.02	-0.07
		38	-	-	-	-	-0.01	-0.09	-0.01	-0.05	0.03	0.02	0.01	0.05

- indicates no item comparisons due to introduction of new item

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts

		2006						2007								
		With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance					
Content	Grade	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
		Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation
RLA	3	1	3	0.92	0.60	1	0.91	0.61	1	3	0.95	0.57	1	0.93	0.63	
		2	3	0.82	0.74	1	0.74	0.73	2	3	0.82	0.60	1	0.75	0.63	
		3	3	0.78	0.58	1	0.75	0.63	3	3	0.83	0.55	1	0.78	0.64	
		4	3	0.71	0.60	1	0.67	0.66	4	3	0.74	0.47	1	0.70	0.57	
		5	3	0.58	0.40	1	0.55	0.46	5	3	0.59	0.40	1	0.54	0.51	
		6	3	0.69	0.67	1	0.65	0.70	6	3	0.74	0.60	1	0.68	0.68	
		7	3	0.69	0.57	1	0.66	0.65	7	3	0.78	0.51	1	0.73	0.58	
		8	3	0.70	0.68	1	0.66	0.72	8	3	0.77	0.56	1	0.72	0.62	
		9	3	0.75	0.52	1	0.72	0.54	9	3	0.84	0.51	1	0.80	0.59	
		10	3	0.87	0.68	1	0.84	0.71	10	3	0.92	0.64	1	0.89	0.69	
		11	3	0.70	0.71	1	0.66	0.71	11	3	0.73	0.57	1	0.67	0.62	
		12	6	0.73	0.83	2	0.62	0.81	12	6	0.80	0.79	2	0.72	0.82	
		13	3	0.66	0.70	1	0.63	0.72	13	3	0.73	0.64	1	0.68	0.70	
		14	3	0.69	0.68	1	0.65	0.70	14	3	0.75	0.58	1	0.70	0.65	
		15	3	0.71	0.64	1	0.66	0.70	15	3	0.72	0.64	1	0.66	0.68	
		16	3	0.73	0.61	1	0.69	0.65	16	3	0.71	0.59	1	0.64	0.65	
		17	3	0.74	0.72	1	0.71	0.73	17	3	0.82	0.64	1	0.78	0.68	
		18	3	0.80	0.61	1	0.77	0.68	18	3	0.82	0.59	1	0.78	0.67	
		19	3	0.60	0.56	1	0.54	0.59	19	3	0.66	0.55	1	0.60	0.63	
		20	3	0.85	0.68	1	0.81	0.74	20	3	0.90	0.61	1	0.87	0.66	
		21	6	0.69	0.78	2	0.59	0.77	21	6	0.70	0.71	2	0.60	0.74	
		22	3	0.45	0.52	1	0.37	0.55	22	3	0.49	0.32	1	0.40	0.42	
		23	3	0.91	0.72	1	0.87	0.73	23*	3	0.94	0.61	1	0.91	0.60	
		24	3	0.58	0.60	1	0.53	0.66	24	3	0.58	0.57	1	0.49	0.60	
		25	3	0.49	0.59	1	0.46	0.64	25	3	0.55	0.52	1	0.47	0.59	
		26	3	0.75	0.70	1	0.72	0.67	26*	3	0.81	0.62	1	0.77	0.61	

* new item in 2007

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2008						2009						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
		1	3	0.94	0.52	1	0.93	0.57	1	3	0.93	0.53	1	0.91	0.59
		2	3	0.86	0.58	1	0.80	0.58	2	3	0.80	0.68	1	0.73	0.73
		3	3	0.84	0.36	1	0.80	0.48	3	3	0.78	0.47	1	0.73	0.59
		4	3	0.78	0.47	1	0.75	0.56	4	3	0.72	0.44	1	0.67	0.54
		5	3	0.66	0.34	1	0.63	0.42	5	3	0.69	0.35	1	0.64	0.49
		6	3	0.74	0.67	1	0.69	0.69	6	3	0.73	0.66	1	0.67	0.72
		7	3	0.75	0.42	1	0.71	0.49	7	3	0.73	0.57	1	0.66	0.66
		8	3	0.76	0.63	1	0.71	0.68	8	3	0.71	0.56	1	0.65	0.65
		9	3	0.82	0.46	1	0.79	0.52	9	3	0.79	0.54	1	0.75	0.63
		10	3	0.93	0.58	1	0.92	0.62	10	3	0.91	0.67	1	0.87	0.73
		11	3	0.78	0.58	1	0.73	0.60	11	3	0.73	0.60	1	0.66	0.68
		12	6	0.81	0.75	2	0.75	0.77	12	6	0.81	0.78	2	0.73	0.80
RLA	3	13	3	0.73	0.67	1	0.69	0.71	13	3	0.72	0.59	1	0.66	0.68
		14	3	0.77	0.57	1	0.75	0.62	14	3	0.72	0.61	1	0.67	0.68
		15	3	0.75	0.61	1	0.68	0.64	15	3	0.73	0.62	1	0.68	0.67
		16	3	0.82	0.57	1	0.75	0.62	16	3	0.73	0.61	1	0.67	0.67
		17	3	0.85	0.60	1	0.82	0.64	17	3	0.75	0.62	1	0.69	0.71
		18	3	0.87	0.60	1	0.85	0.67	18	3	0.81	0.61	1	0.77	0.68
		19	3	0.69	0.51	1	0.65	0.55	19	3	0.62	0.53	1	0.56	0.61
		20	3	0.89	0.59	1	0.87	0.63	20	3	0.86	0.68	1	0.82	0.74
		21	6	0.73	0.77	2	0.67	0.77	21	6	0.71	0.75	2	0.62	0.78
		22	3	0.59	0.44	1	0.51	0.50	22	3	0.52	0.45	1	0.44	0.53
		23	3	0.94	0.50	1	0.91	0.56	23	3	0.91	0.69	1	0.87	0.74
		24	3	0.55	0.60	1	0.48	0.64	24	3	0.59	0.65	1	0.53	0.68
		25	3	0.53	0.60	1	0.49	0.62	25	3	0.53	0.57	1	0.46	0.61
		26	3	0.81	0.68	1	0.78	0.67	26	3	0.80	0.68	1	0.77	0.69

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008			
			With		Without		With		Without		With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	0.03	-0.03	0.02	0.02	-0.01	-0.05	0.00	-0.06	-0.01	0.01	-0.02	0.02
		2	0.00	-0.14	0.01	-0.10	0.04	-0.02	0.05	-0.05	-0.06	0.10	-0.07	0.15
		3	0.05	-0.03	0.03	0.01	0.01	-0.19	0.02	-0.16	-0.06	0.11	-0.07	0.11
		4	0.03	-0.13	0.03	-0.09	0.04	0.00	0.05	-0.01	-0.06	-0.03	-0.08	-0.02
		5	0.01	0.00	-0.01	0.05	0.07	-0.06	0.09	-0.09	0.03	0.01	0.01	0.07
		6	0.05	-0.07	0.03	-0.02	0.00	0.07	0.01	0.01	-0.01	-0.01	-0.02	0.03
		7	0.09	-0.06	0.07	-0.07	-0.03	-0.09	-0.02	-0.09	-0.02	0.15	-0.05	0.17
		8	0.07	-0.12	0.06	-0.10	-0.01	0.07	-0.01	0.06	-0.05	-0.07	-0.06	-0.03
		9	0.09	-0.01	0.08	0.05	-0.02	-0.05	-0.01	-0.07	-0.03	0.08	-0.04	0.11
		10	0.05	-0.04	0.05	-0.02	0.01	-0.06	0.03	-0.07	-0.02	0.09	-0.05	0.11
		11	0.03	-0.14	0.01	-0.09	0.05	0.01	0.06	-0.02	-0.05	0.02	-0.07	0.08
		12	0.07	-0.04	0.10	0.01	0.01	-0.04	0.03	-0.05	0.00	0.03	-0.02	0.03
RLA	3	13	0.07	-0.06	0.05	-0.02	0.00	0.03	0.01	0.01	-0.01	-0.08	-0.03	-0.03
		14	0.06	-0.10	0.05	-0.05	0.02	-0.01	0.05	-0.03	-0.05	0.04	-0.08	0.06
		15	0.01	0.00	0.00	-0.02	0.03	-0.03	0.02	-0.04	-0.02	0.01	0.00	0.03
		16	-0.02	-0.02	-0.05	0.00	0.11	-0.02	0.11	-0.03	-0.09	0.04	-0.08	0.05
		17	0.08	-0.08	0.07	-0.05	0.03	-0.04	0.04	-0.04	-0.10	0.02	-0.13	0.07
		18	0.02	-0.02	0.01	-0.01	0.05	0.01	0.07	0.00	-0.06	0.01	-0.08	0.01
		19	0.06	-0.01	0.06	0.04	0.03	-0.04	0.05	-0.08	-0.07	0.02	-0.09	0.06
		20	0.05	-0.07	0.06	-0.08	-0.01	-0.02	0.00	-0.03	-0.03	0.09	-0.05	0.11
		21	0.01	-0.07	0.01	-0.03	0.03	0.06	0.07	0.03	-0.02	-0.02	-0.05	0.01
		22	0.04	-0.20	0.03	-0.13	0.10	0.12	0.11	0.08	-0.07	0.01	-0.07	0.03
		23	–	–	–	–	0.00	-0.11	0.00	-0.04	-0.03	0.19	-0.04	0.18
		24	0.00	-0.03	-0.04	-0.06	-0.03	0.03	-0.01	0.04	0.04	0.05	0.05	0.04
		25	0.06	-0.07	0.01	-0.05	-0.02	0.08	0.02	0.03	0.00	-0.03	-0.03	-0.01
		26	–	–	–	–	0.00	0.06	0.01	0.06	-0.01	0.00	-0.01	0.02

– indicates no item comparisons due to introduction of new item

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2006						2007						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
		Points	Difficulty	Correlation	Points	Difficulty	Correlation	Item	Points	Difficulty	Correlation	Points	Difficulty	Correlation	
RLA	4	1	3	0.86	0.60	1	0.82	0.69	1	3	0.85	0.63	1	0.82	0.73
		2	3	0.91	0.58	1	0.89	0.64	2*	3	0.52	0.28	1	0.50	0.30
		3	3	0.77	0.64	1	0.74	0.70	3	3	0.80	0.60	1	0.77	0.69
		4	3	0.71	0.51	1	0.64	0.58	4	3	0.73	0.59	1	0.68	0.67
		5	3	0.65	0.62	1	0.59	0.69	5	3	0.75	0.64	1	0.70	0.70
		6	3	0.76	0.75	1	0.70	0.77	6	3	0.80	0.70	1	0.76	0.78
		7	3	0.89	0.46	1	0.84	0.55	7	3	0.89	0.53	1	0.85	0.62
		8	3	0.58	0.35	1	0.53	0.45	8	3	0.60	0.42	1	0.56	0.50
		9	3	0.52	0.46	1	0.45	0.52	9	3	0.56	0.46	1	0.51	0.54
		10	3	0.53	0.41	1	0.45	0.47	10	3	0.59	0.46	1	0.53	0.55
		11	3	0.85	0.63	1	0.81	0.73	11	3	0.86	0.65	1	0.82	0.73
		12	6	0.65	0.71	2	0.57	0.73	12	6	0.78	0.82	2	0.71	0.82
		13	3	0.90	0.57	1	0.84	0.66	13**	–	–	–	–	–	–
		14	3	0.90	0.57	1	0.86	0.67	14	3	0.91	0.69	1	0.87	0.74
		15	3	0.61	0.45	1	0.55	0.53	15	3	0.67	0.54	1	0.63	0.62
		16	6	0.65	0.77	2	0.54	0.74	16	6	0.77	0.79	2	0.67	0.80
		17	3	0.68	0.66	1	0.62	0.71	17	3	0.76	0.65	1	0.71	0.72
		18	3	0.86	0.54	1	0.80	0.65	18	3	0.85	0.58	1	0.81	0.63
		19	3	0.87	0.68	1	0.82	0.75	19	3	0.88	0.68	1	0.85	0.76
		20	3	0.63	0.63	1	0.58	0.68	20	3	0.61	0.50	1	0.56	0.59
		21	6	0.74	0.69	2	0.63	0.75	21	6	0.79	0.72	2	0.73	0.77
		22	3	0.64	0.61	1	0.58	0.67	22*	3	0.51	0.51	1	0.48	0.55

* new item in 2007

** new item in 2007, was suppressed

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2008						2009						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
RLA	4	1	3	0.88	0.57	1	0.86	0.63	1	3	0.89	0.61	1	0.86	0.67
		2	3	0.95	0.57	1	0.92	0.61	2	3	0.93	0.42	1	0.91	0.52
		3	3	0.88	0.68	1	0.84	0.75	3	3	0.87	0.60	1	0.85	0.65
		4	3	0.74	0.66	1	0.69	0.70	4	3	0.77	0.59	1	0.72	0.65
		5	3	0.76	0.68	1	0.71	0.73	5	3	0.75	0.65	1	0.71	0.67
		6	3	0.83	0.72	1	0.80	0.78	6	3	0.81	0.68	1	0.76	0.77
		7	3	0.90	0.57	1	0.87	0.61	7	3	0.90	0.49	1	0.85	0.59
		8	3	0.69	0.48	1	0.63	0.55	8	3	0.64	0.39	1	0.58	0.52
		9	3	0.58	0.54	1	0.54	0.60	9	3	0.55	0.50	1	0.48	0.56
		10	3	0.63	0.43	1	0.59	0.52	10	3	0.63	0.48	1	0.56	0.54
		11	3	0.88	0.60	1	0.85	0.66	11	3	0.91	0.66	1	0.87	0.72
		12	6	0.75	0.73	2	0.67	0.77	12	6	0.78	0.70	2	0.70	0.78
		13*	—	—	—	—	—	—	13*	—	—	—	—	—	—
		14	3	0.94	0.56	1	0.91	0.67	14	3	0.93	0.61	1	0.90	0.70
		15	3	0.66	0.37	1	0.62	0.48	15	3	0.64	0.39	1	0.58	0.45
		16	6	0.77	0.78	2	0.65	0.78	16	6	0.77	0.77	2	0.69	0.82
		17	3	0.79	0.67	1	0.75	0.74	17	3	0.77	0.65	1	0.72	0.71
		18	3	0.88	0.68	1	0.84	0.75	18	3	0.83	0.60	1	0.78	0.67
		19	3	0.91	0.67	1	0.89	0.71	19	3	0.91	0.56	1	0.88	0.66
		20	3	0.68	0.58	1	0.62	0.66	20	3	0.68	0.57	1	0.62	0.62
		21	6	0.83	0.70	2	0.76	0.75	21	6	0.83	0.67	2	0.76	0.74
		22	3	0.65	0.67	1	0.62	0.69	22	3	0.68	0.63	1	0.64	0.66

* item suppressed in 2008

* item suppressed in 2009

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008			
			With		Without		With		Without		With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	-0.01	0.03	0.00	0.04	0.03	-0.06	0.04	-0.10	0.01	0.04	0.00	0.04
		2	–	–	–	–	0.43	0.29	0.42	0.31	-0.02	-0.15	-0.01	-0.09
		3	0.03	-0.04	0.03	-0.01	0.08	0.08	0.07	0.06	-0.01	-0.08	0.01	-0.10
		4	0.02	0.08	0.04	0.09	0.01	0.07	0.01	0.03	0.03	-0.07	0.03	-0.05
		5	0.10	0.02	0.11	0.01	0.01	0.04	0.01	0.03	-0.01	-0.03	0.00	-0.06
		6	0.04	-0.05	0.06	0.01	0.03	0.02	0.04	0.00	-0.02	-0.04	-0.04	-0.01
		7	0.00	0.07	0.01	0.07	0.01	0.04	0.02	-0.01	0.00	-0.08	-0.02	-0.02
		8	0.02	0.07	0.03	0.05	0.09	0.06	0.07	0.05	-0.05	-0.09	-0.05	-0.03
		9	0.04	0.00	0.06	0.02	0.02	0.08	0.03	0.06	-0.03	-0.04	-0.06	-0.04
		10	0.06	0.05	0.08	0.08	0.04	-0.03	0.06	-0.03	0.00	0.05	-0.03	0.02
RLA	4	11	0.01	0.02	0.01	0.00	0.02	-0.05	0.03	-0.07	0.03	0.06	0.02	0.06
		12	0.13	0.11	0.14	0.09	-0.03	-0.09	-0.04	-0.05	0.03	-0.03	0.03	0.01
		13	–	–	–	–	–	–	–	–	–	–	–	–
		14	0.01	0.12	0.01	0.07	0.03	-0.13	0.04	-0.07	-0.01	0.05	-0.01	0.03
		15	0.06	0.09	0.08	0.09	-0.01	-0.17	-0.01	-0.14	-0.02	0.02	-0.04	-0.03
		16	0.12	0.02	0.13	0.06	0.00	-0.01	-0.02	-0.02	0.00	-0.01	0.04	0.04
		17	0.08	-0.01	0.09	0.01	0.03	0.02	0.04	0.02	-0.02	-0.02	-0.03	-0.03
		18	-0.01	0.04	0.01	-0.02	0.03	0.10	0.03	0.12	-0.05	-0.08	-0.06	-0.08
		19	0.01	0.00	0.03	0.01	0.03	-0.01	0.04	-0.05	0.00	-0.11	-0.01	-0.05
		20	-0.02	-0.13	-0.02	-0.09	0.07	0.08	0.06	0.07	0.00	-0.01	0.00	-0.04
		21	0.05	0.03	0.10	0.02	0.04	-0.02	0.03	-0.02	0.00	-0.03	0.00	-0.01
		22	–	–	–	–	0.14	0.16	0.14	0.14	0.03	-0.04	0.02	-0.03

– indicates no item comparisons due to introduction of new item

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

		2006							2007						
		With Level of Assistance			Without Level of Assistance				With Level of Assistance				Without Level of Assistance		
Content	Grade	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test
			Points	Difficulty	Correlation	Points	Difficulty	Correlation		Points	Difficulty	Correlation	Points	Difficulty	Correlation
		1	3	0.66	0.55	1	0.63	0.55	1	3	0.70	0.59	1	0.65	0.65
		2	3	0.80	0.55	1	0.76	0.60	2	3	0.86	0.53	1	0.81	0.63
		3	3	0.65	0.61	1	0.60	0.64	3	3	0.73	0.60	1	0.68	0.67
		4	3	0.76	0.56	1	0.73	0.64	4	3	0.78	0.60	1	0.74	0.68
		5	3	0.51	0.60	1	0.41	0.64	5	3	0.58	0.64	1	0.48	0.68
		6	3	0.36	0.45	1	0.28	0.55	6	3	0.44	0.52	1	0.39	0.57
		7	3	0.53	0.61	1	0.45	0.67	7	3	0.59	0.63	1	0.51	0.69
		8	3	0.85	0.57	1	0.83	0.62	8	3	0.89	0.62	1	0.86	0.69
		9	3	0.79	0.58	1	0.75	0.64	9*	3	0.87	0.60	1	0.82	0.62
		10	3	0.73	0.65	1	0.62	0.69	10	3	0.76	0.56	1	0.66	0.62
		11	3	0.67	0.66	1	0.58	0.70	11*	3	0.75	0.73	1	0.67	0.76
		12	3	0.66	0.70	1	0.57	0.74	12*	3	0.73	0.68	1	0.64	0.74
RLA	5	13	3	0.84	0.64	1	0.80	0.69	13	3	0.90	0.58	1	0.86	0.69
		14	3	0.77	0.64	1	0.71	0.68	14	3	0.80	0.57	1	0.75	0.67
		15	3	0.64	0.64	1	0.59	0.68	15	3	0.74	0.66	1	0.68	0.73
		16	3	0.69	0.45	1	0.65	0.52	16	3	0.73	0.36	1	0.69	0.46
		17	3	0.68	0.44	1	0.62	0.50	17	3	0.69	0.52	1	0.64	0.59
		18	3	0.36	0.62	1	0.29	0.60	18*	3	0.44	0.58	1	0.35	0.59
		19	3	0.63	0.59	1	0.59	0.63	19	3	0.67	0.54	1	0.62	0.59
		20	3	0.69	0.66	1	0.59	0.70	20	3	0.78	0.66	1	0.68	0.72
		21	3	0.47	0.40	1	0.41	0.50	21	3	0.46	0.33	1	0.39	0.39
		22	3	0.62	0.58	1	0.59	0.58	22*	3	0.76	0.55	1	0.72	0.61
		23	3	0.63	0.72	1	0.54	0.74	23	3	0.71	0.65	1	0.63	0.71
		24	3	0.36	0.29	1	0.32	0.34	24*	3	0.39	0.53	1	0.35	0.53
		25	3	0.39	0.27	1	0.36	0.36	25	3	0.40	0.40	1	0.35	0.48
		26	3	0.61	0.61	1	0.58	0.63	26*	3	0.74	0.59	1	0.69	0.62

* new item in 2007

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2008						2009						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
RLA	5	1	3	0.74	0.63	1	0.68	0.70	1	3	0.74	0.60	1	0.70	0.66
		2	3	0.84	0.52	1	0.79	0.64	2	3	0.88	0.55	1	0.86	0.61
		3	3	0.77	0.61	1	0.72	0.67	3	3	0.76	0.61	1	0.71	0.71
		4	3	0.81	0.57	1	0.77	0.67	4	3	0.81	0.49	1	0.77	0.62
		5	3	0.59	0.67	1	0.51	0.70	5	3	0.63	0.66	1	0.54	0.69
		6	3	0.48	0.51	1	0.41	0.57	6	3	0.46	0.53	1	0.41	0.58
		7	3	0.61	0.66	1	0.54	0.70	7	3	0.61	0.63	1	0.53	0.67
		8	3	0.92	0.60	1	0.88	0.69	8	3	0.91	0.61	1	0.88	0.70
		9	3	0.87	0.69	1	0.84	0.75	9	3	0.87	0.62	1	0.84	0.70
		10	3	0.77	0.60	1	0.69	0.70	10	3	0.78	0.52	1	0.70	0.65
		11	3	0.77	0.70	1	0.69	0.77	11	3	0.77	0.70	1	0.71	0.75
		12	3	0.74	0.71	1	0.68	0.76	12	3	0.75	0.70	1	0.70	0.76
		13	3	0.90	0.55	1	0.85	0.68	13	3	0.91	0.58	1	0.87	0.70
		14	3	0.81	0.56	1	0.76	0.69	14	3	0.81	0.54	1	0.77	0.67
		15	3	0.79	0.72	1	0.73	0.77	15	3	0.79	0.67	1	0.74	0.74
		16	3	0.77	0.38	1	0.72	0.49	16	3	0.82	0.48	1	0.78	0.58
		17	3	0.71	0.51	1	0.65	0.58	17	3	0.71	0.50	1	0.67	0.55
		18	3	0.43	0.58	1	0.35	0.56	18	3	0.51	0.61	1	0.45	0.63
		19	3	0.73	0.56	1	0.68	0.67	19	3	0.76	0.54	1	0.72	0.63
		20	3	0.80	0.74	1	0.72	0.79	20	3	0.83	0.67	1	0.76	0.75
		21	3	0.48	0.34	1	0.41	0.46	21	3	0.51	0.33	1	0.46	0.44
		22	3	0.68	0.59	1	0.65	0.62	22	3	0.82	0.62	1	0.79	0.64
		23	3	0.72	0.68	1	0.64	0.74	23	3	0.72	0.69	1	0.64	0.75
		24	3	0.46	0.59	1	0.44	0.57	24	3	0.48	0.64	1	0.46	0.64
		25	3	0.53	0.43	1	0.46	0.51	25	3	0.43	0.24	1	0.37	0.33
		26	3	0.72	0.66	1	0.68	0.67	26	3	0.78	0.64	1	0.74	0.66

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008			
			With		Without		With		Without		With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	0.04	0.04	0.02	0.10	0.04	0.04	0.03	0.05	0.00	-0.03	0.02	-0.04
		2	0.06	-0.02	0.05	0.03	-0.02	-0.01	-0.02	0.01	0.04	0.03	0.07	-0.03
		3	0.08	-0.01	0.08	0.03	0.04	0.01	0.04	0.00	-0.01	0.00	-0.01	0.04
		4	0.02	0.04	0.01	0.04	0.03	-0.03	0.03	-0.01	0.00	-0.08	0.00	-0.05
		5	0.07	0.04	0.07	0.04	0.01	0.03	0.03	0.02	0.04	-0.01	0.03	-0.01
		6	0.08	0.07	0.11	0.02	0.04	-0.01	0.02	0.00	-0.02	0.02	0.00	0.01
		7	0.06	0.02	0.06	0.02	0.02	0.03	0.03	0.01	0.00	-0.03	-0.01	-0.03
		8	0.04	0.05	0.03	0.07	0.03	-0.02	0.02	0.00	-0.01	0.01	0.00	0.01
		9	–	–	–	–	0.00	0.09	0.02	0.13	0.00	-0.07	0.00	-0.05
		10	0.03	-0.09	0.04	-0.07	0.01	0.04	0.03	0.08	0.01	-0.08	0.01	-0.05
		11	–	–	–	–	0.02	-0.03	0.02	0.01	0.00	0.00	0.02	-0.02
		12	–	–	–	–	0.01	0.03	0.04	0.02	0.01	-0.01	0.02	0.00
RLA	5	13	0.06	-0.06	0.06	0.00	0.00	-0.03	-0.01	-0.01	0.01	0.03	0.02	0.02
		14	0.03	-0.07	0.04	-0.01	0.01	-0.01	0.01	0.02	0.00	-0.02	0.01	-0.02
		15	0.10	0.02	0.09	0.05	0.05	0.06	0.05	0.04	0.00	-0.05	0.01	-0.03
		16	0.04	-0.09	0.04	-0.06	0.04	0.02	0.03	0.03	0.05	0.10	0.06	0.09
		17	0.01	0.08	0.02	0.09	0.02	-0.01	0.01	-0.01	0.00	-0.01	0.02	-0.03
		18	–	–	–	–	-0.01	0.00	0.00	-0.03	0.08	0.03	0.10	0.07
		19	0.04	-0.05	0.03	-0.04	0.06	0.02	0.06	0.08	0.03	-0.02	0.04	-0.04
		20	0.09	0.00	0.09	0.02	0.02	0.08	0.04	0.07	0.03	-0.07	0.04	-0.04
		21	-0.01	-0.07	-0.02	-0.11	0.02	0.01	0.02	0.07	0.03	-0.01	0.05	-0.02
		22	–	–	–	–	-0.08	0.04	-0.07	0.01	0.14	0.03	0.14	0.02
		23	0.08	-0.07	0.09	-0.03	0.01	0.03	0.01	0.03	0.00	0.01	0.00	0.01
		24	–	–	–	–	0.07	0.06	0.09	0.04	0.02	0.05	0.02	0.07
		25	0.01	0.13	-0.01	0.12	0.13	0.03	0.11	0.03	-0.10	-0.19	-0.09	-0.18
		26	–	–	–	–	-0.02	0.07	-0.01	0.05	0.06	-0.02	0.06	-0.01

– indicates no item comparisons due to introduction of new item

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

		2006							2007						
		With Level of Assistance			Without Level of Assistance				With Level of Assistance			Without Level of Assistance			
Content	Grade	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test
			Points	Difficulty	Correlation	Points	Difficulty	Correlation		Points	Difficulty	Correlation	Points	Difficulty	Correlation
		1	3	0.86	0.59	1	0.79	0.69	1	3	0.89	0.67	1	0.84	0.68
		2	3	0.74	0.65	1	0.69	0.67	2*	3	0.76	0.64	1	0.69	0.68
		3	3	0.61	0.48	1	0.53	0.57	3	3	0.69	0.38	1	0.63	0.45
		4	3	0.90	0.67	1	0.84	0.74	4	3	0.87	0.62	1	0.84	0.67
		5	3	0.89	0.55	1	0.86	0.61	5	3	0.88	0.56	1	0.86	0.62
		6	3	0.68	0.56	1	0.63	0.60	6	3	0.75	0.56	1	0.69	0.57
		7	3	0.85	0.52	1	0.80	0.67	7	3	0.84	0.55	1	0.82	0.62
		8	3	0.79	0.65	1	0.71	0.72	8	3	0.82	0.56	1	0.75	0.62
		9	3	0.71	0.53	1	0.59	0.56	9	3	0.76	0.52	1	0.67	0.60
		10	3	0.86	0.62	1	0.78	0.72	10	3	0.85	0.63	1	0.79	0.72
		11	3	0.87	0.65	1	0.80	0.73	11	3	0.86	0.62	1	0.79	0.66
		12	3	0.80	0.67	1	0.72	0.74	12	3	0.83	0.61	1	0.76	0.70
		13	3	0.54	0.54	1	0.49	0.56	13	3	0.64	0.57	1	0.59	0.64
		14	3	0.60	0.56	1	0.54	0.62	14	3	0.63	0.56	1	0.58	0.62
RLA	6	15	3	0.90	0.62	1	0.86	0.72	15	3	0.90	0.60	1	0.86	0.67
		16	3	0.85	0.61	1	0.82	0.67	16	3	0.88	0.61	1	0.84	0.67
		17	3	0.89	0.65	1	0.85	0.75	17*	6	0.55	0.58	2	0.49	0.61
		18	3	0.77	0.69	1	0.71	0.74	18	3	0.79	0.71	1	0.73	0.76
		19	3	0.69	0.58	1	0.63	0.63	19	3	0.72	0.60	1	0.67	0.67
		20	3	0.72	0.58	1	0.67	0.64	20	3	0.72	0.68	1	0.67	0.72
		21	3	0.95	0.57	1	0.91	0.64	21*	3	0.94	0.45	1	0.92	0.51
		22	3	0.85	0.59	1	0.80	0.70	22	3	0.86	0.70	1	0.81	0.76
		23	3	0.64	0.55	1	0.57	0.61	23	3	0.67	0.58	1	0.61	0.63
		24	3	0.70	0.68	1	0.63	0.72	24*	3	0.70	0.69	1	0.64	0.73
		25	3	0.50	0.56	1	0.45	0.62	25*	3	0.66	0.69	1	0.59	0.73
		26	3	0.71	0.54	1	0.64	0.65	26*	3	0.77	0.63	1	0.73	0.69
		27	3	0.75	0.66	1	0.69	0.72	27	3	0.79	0.70	1	0.74	0.74
		28	3	0.74	0.57	1	0.69	0.69	28	3	0.77	0.60	1	0.73	0.68
		29	3	0.70	0.50	1	0.64	0.61	29	3	0.80	0.55	1	0.76	0.60

* new item in 2007

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

		2008							2009						
		With Level of Assistance			Without Level of Assistance				With Level of Assistance				Without Level of Assistance		
Content	Grade	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test
			Points	Difficulty	Correlation	Points	Difficulty	Correlation		Points	Difficulty	Correlation	Points	Difficulty	Correlation
		1	3	0.89	0.47	1	0.83	0.63	1	3	0.90	0.69	1	0.84	0.76
		2	3	0.80	0.53	1	0.75	0.56	2	3	0.76	0.70	1	0.72	0.71
		3	3	0.62	0.36	1	0.56	0.43	3	3	0.64	0.37	1	0.57	0.44
		4	3	0.92	0.52	1	0.88	0.62	4	3	0.87	0.58	1	0.83	0.69
		5	3	0.91	0.58	1	0.86	0.70	5	3	0.88	0.65	1	0.85	0.71
		6	3	0.68	0.52	1	0.62	0.53	6	3	0.70	0.58	1	0.65	0.65
		7	3	0.86	0.48	1	0.84	0.59	7	3	0.87	0.48	1	0.83	0.59
		8	3	0.78	0.49	1	0.73	0.59	8	3	0.78	0.63	1	0.73	0.69
		9	3	0.71	0.50	1	0.62	0.57	9	3	0.73	0.51	1	0.65	0.59
		10	3	0.86	0.51	1	0.80	0.63	10	3	0.86	0.64	1	0.79	0.73
		11	3	0.87	0.57	1	0.81	0.66	11	3	0.87	0.70	1	0.80	0.79
		12	3	0.79	0.67	1	0.73	0.72	12	3	0.82	0.71	1	0.75	0.78
		13	3	0.66	0.57	1	0.62	0.62	13	3	0.66	0.63	1	0.59	0.69
		14	3	0.66	0.59	1	0.62	0.65	14	3	0.58	0.53	1	0.53	0.59
RLA	6	15	3	0.89	0.54	1	0.85	0.68	15	3	0.89	0.59	1	0.85	0.69
		16	3	0.86	0.51	1	0.83	0.60	16	3	0.88	0.61	1	0.83	0.72
		17	6	0.63	0.59	2	0.51	0.61	17	6	0.55	0.64	2	0.48	0.67
		18	3	0.78	0.62	1	0.73	0.67	18	3	0.77	0.66	1	0.71	0.74
		19	3	0.69	0.65	1	0.63	0.70	19	3	0.73	0.67	1	0.67	0.74
		20	3	0.68	0.59	1	0.63	0.65	20	3	0.74	0.68	1	0.67	0.75
		21	3	0.95	0.51	1	0.93	0.63	21	3	0.94	0.56	1	0.91	0.64
		22	3	0.85	0.46	1	0.81	0.60	22	3	0.87	0.61	1	0.82	0.69
		23	3	0.62	0.51	1	0.57	0.56	23	3	0.69	0.61	1	0.62	0.64
		24	3	0.74	0.64	1	0.69	0.69	24	3	0.72	0.73	1	0.63	0.78
		25	3	0.68	0.62	1	0.62	0.66	25	3	0.67	0.67	1	0.61	0.75
		26	3	0.77	0.60	1	0.72	0.68	26	3	0.78	0.68	1	0.70	0.75
		27	3	0.76	0.62	1	0.72	0.68	27	3	0.81	0.70	1	0.75	0.78
		28	3	0.75	0.60	1	0.72	0.68	28	3	0.78	0.64	1	0.72	0.75
		29	3	0.80	0.54	1	0.76	0.64	29	3	0.75	0.62	1	0.68	0.70

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008			
			With		Without		With		Without		With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	0.03	0.08	0.05	-0.01	0.00	-0.20	-0.01	-0.05	0.01	0.22	0.01	0.13
		2	–	–	–	–	0.04	-0.11	0.06	-0.12	-0.04	0.17	-0.03	0.15
		3	0.08	-0.10	0.10	-0.12	-0.07	-0.02	-0.07	-0.02	0.02	0.01	0.01	0.01
		4	-0.03	-0.05	0.00	-0.07	0.05	-0.10	0.04	-0.05	-0.05	0.06	-0.05	0.07
		5	-0.01	0.01	0.00	0.01	0.03	0.02	0.00	0.08	-0.03	0.07	-0.01	0.01
		6	0.07	0.00	0.06	-0.03	-0.07	-0.04	-0.07	-0.04	0.02	0.06	0.03	0.12
		7	-0.01	0.03	0.02	-0.05	0.02	-0.07	0.02	-0.03	0.01	0.00	-0.01	0.00
		8	0.03	-0.09	0.04	-0.10	-0.04	-0.07	-0.02	-0.03	0.00	0.14	0.00	0.10
		9	0.05	-0.01	0.08	0.04	-0.05	-0.02	-0.05	-0.03	0.02	0.01	0.03	0.02
		10	-0.01	0.01	0.01	0.00	0.01	-0.12	0.01	-0.09	0.00	0.13	-0.01	0.10
		11	-0.01	-0.03	-0.01	-0.07	0.01	-0.05	0.02	0.00	0.00	0.13	-0.01	0.13
		12	0.03	-0.06	0.04	-0.04	-0.04	0.06	-0.03	0.02	0.03	0.04	0.02	0.06
		13	0.10	0.03	0.10	0.08	0.02	0.00	0.03	-0.02	0.00	0.06	-0.03	0.07
		14	0.03	0.00	0.04	0.00	0.03	0.03	0.04	0.03	-0.08	-0.06	-0.09	-0.06
RLA	6	15	0.00	-0.02	0.00	-0.05	-0.01	-0.06	-0.01	0.01	0.00	0.05	0.00	0.01
		16	0.03	0.00	0.02	0.00	-0.02	-0.10	-0.01	-0.07	0.02	0.10	0.00	0.12
		17	–	–	–	–	0.08	0.01	0.02	0.00	-0.08	0.05	-0.03	0.06
		18	0.02	0.02	0.02	0.02	-0.01	-0.09	0.00	-0.09	-0.01	0.04	-0.02	0.07
		19	0.03	0.02	0.04	0.04	-0.03	0.05	-0.04	0.03	0.04	0.02	0.04	0.04
		20	0.00	0.10	0.00	0.08	-0.04	-0.09	-0.04	-0.07	0.06	0.09	0.04	0.10
		21	–	–	–	–	0.01	0.06	0.01	0.12	-0.01	0.05	-0.02	0.01
		22	0.01	0.11	0.01	0.06	-0.01	-0.24	0.00	-0.16	0.02	0.15	0.01	0.09
		23	0.03	0.03	0.04	0.02	-0.05	-0.07	-0.04	-0.07	0.07	0.10	0.05	0.08
		24	–	–	–	–	0.04	-0.05	0.05	-0.04	-0.02	0.09	-0.06	0.09
		25	–	–	–	–	0.02	-0.07	0.03	-0.07	-0.01	0.05	-0.01	0.09
		26	–	–	–	–	0.00	-0.03	-0.01	-0.01	0.01	0.08	-0.02	0.07
		27	0.04	0.04	0.05	0.02	-0.03	-0.08	-0.02	-0.06	0.05	0.08	0.03	0.10
		28	0.03	0.03	0.04	-0.01	-0.02	0.00	-0.01	0.00	0.03	0.04	0.00	0.07
		29	0.10	0.05	0.12	-0.01	0.00	-0.01	0.00	0.04	-0.05	0.08	-0.08	0.06

– indicates no item comparisons due to introduction of new item

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

		2006							2007						
		With Level of Assistance			Without Level of Assistance				With Level of Assistance				Without Level of Assistance		
Content	Grade	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Item	Points	Difficulty	Correlation	Max Score	Item	Item-Test
			Points	Difficulty	Correlation	Points	Difficulty	Correlation					Points	Difficulty	Correlation
		1	3	0.90	0.60	1	0.85	0.70	1	3	0.94	0.50	1	0.91	0.66
		2	3	0.81	0.69	1	0.77	0.71	2*	3	0.90	0.66	1	0.85	0.72
		3	3	0.78	0.65	1	0.75	0.64	3*	3	0.87	0.56	1	0.83	0.69
		4	3	0.86	0.62	1	0.81	0.69	4	3	0.93	0.58	1	0.89	0.70
		5	3	0.88	0.52	1	0.86	0.54	5*	3	0.94	0.54	1	0.91	0.55
		6	3	0.65	0.52	1	0.60	0.57	6	3	0.67	0.45	1	0.62	0.52
		7	3	0.92	0.54	1	0.89	0.61	7*	3	0.91	0.44	1	0.88	0.54
		8	3	0.82	0.65	1	0.80	0.70	8	3	0.93	0.55	1	0.91	0.66
		9	3	0.82	0.59	1	0.78	0.66	9	3	0.89	0.55	1	0.85	0.66
		10	3	0.79	0.57	1	0.75	0.65	10	3	0.87	0.58	1	0.83	0.68
		11	3	0.81	0.54	1	0.78	0.58	11	3	0.88	0.53	1	0.84	0.66
		12	3	0.76	0.56	1	0.72	0.62	12	3	0.84	0.58	1	0.80	0.70
		13	3	0.79	0.75	1	0.72	0.77	13	3	0.84	0.58	1	0.78	0.69
		14	3	0.83	0.67	1	0.77	0.72	14	3	0.89	0.59	1	0.84	0.68
		15	3	0.83	0.64	1	0.81	0.70	15*	3	0.90	0.67	1	0.87	0.73
		16	3	0.63	0.67	1	0.58	0.68	16*	3	0.70	0.59	1	0.66	0.64
		17	3	0.86	0.58	1	0.82	0.64	17	3	0.89	0.57	1	0.87	0.62
		18	3	0.61	0.62	1	0.56	0.61	18*	6	0.50	0.51	2	0.36	0.44
RLA	7	19	3	0.71	0.43	1	0.64	0.52	19	3	0.73	0.35	1	0.69	0.46
		20	3	0.79	0.58	1	0.72	0.68	20	3	0.86	0.51	1	0.81	0.57
		21	3	0.84	0.65	1	0.78	0.72	21	3	0.91	0.61	1	0.87	0.69
		22	3	0.78	0.68	1	0.72	0.75	22	3	0.86	0.60	1	0.81	0.68
		23	3	0.80	0.75	1	0.72	0.77	23	3	0.88	0.65	1	0.82	0.70
		24	3	0.70	0.61	1	0.64	0.70	24	3	0.79	0.54	1	0.73	0.62
		25	3	0.70	0.53	1	0.64	0.60	25	3	0.82	0.48	1	0.76	0.59
		26	6	0.79	0.63	2	0.73	0.69	26	6	0.85	0.55	2	0.81	0.63
		27	3	0.70	0.70	1	0.68	0.73	27*	3	0.82	0.69	1	0.81	0.68
		28	3	0.78	0.71	1	0.72	0.74	28*	3	0.87	0.64	1	0.83	0.70
		29	3	0.73	0.61	1	0.69	0.68	29*	3	0.80	0.60	1	0.76	0.67
		30	3	0.65	0.57	1	0.60	0.64	30*	3	0.74	0.65	1	0.70	0.71
		31	3	0.47	0.39	1	0.41	0.46	31	3	0.51	0.27	1	0.44	0.35
		32	3	0.50	0.50	1	0.42	0.53	32*	3	0.62	0.57	1	0.55	0.61
		33	3	0.44	0.55	1	0.37	0.57	33*	3	0.57	0.59	1	0.51	0.63
		34	3	0.49	0.57	1	0.42	0.59	34*	3	0.59	0.59	1	0.53	0.63
		35	3	0.73	0.49	1	0.66	0.56	35	3	0.82	0.57	1	0.76	0.63
		36	3	0.74	0.58	1	0.69	0.66	36	3	0.86	0.64	1	0.82	0.68
		37	3	0.44	0.59	1	0.41	0.56	37*	3	0.49	0.49	1	0.45	0.45

* new item in 2007

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

		2008							2009						
		With Level of Assistance			Without Level of Assistance				With Level of Assistance			Without Level of Assistance			
Content	Grade	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test
			Points	Difficulty	Correlation	Points	Difficulty	Correlation		Points	Difficulty	Correlation	Points	Difficulty	Correlation
		1	3	0.93	0.57	1	0.90	0.65	1	3	0.95	0.58	1	0.92	0.67
		2	3	0.83	0.61	1	0.77	0.68	2	3	0.88	0.67	1	0.84	0.72
		3	3	0.80	0.66	1	0.76	0.69	3	3	0.81	0.52	1	0.79	0.52
		4	3	0.91	0.58	1	0.88	0.68	4	3	0.91	0.60	1	0.88	0.65
		5	3	0.91	0.45	1	0.86	0.53	5	3	0.90	0.53	1	0.86	0.63
		6	3	0.69	0.47	1	0.65	0.53	6	3	0.68	0.48	1	0.65	0.51
		7	3	0.91	0.48	1	0.87	0.60	7	3	0.91	0.51	1	0.89	0.57
		8	3	0.89	0.51	1	0.85	0.62	8	3	0.91	0.56	1	0.89	0.62
		9	3	0.83	0.60	1	0.79	0.67	9	3	0.86	0.67	1	0.83	0.74
		10	3	0.81	0.61	1	0.75	0.71	10	3	0.83	0.65	1	0.79	0.71
		11	3	0.89	0.49	1	0.84	0.64	11	3	0.88	0.62	1	0.85	0.70
		12	3	0.83	0.58	1	0.78	0.69	12	3	0.80	0.69	1	0.76	0.72
		13	3	0.82	0.64	1	0.76	0.67	13	3	0.81	0.72	1	0.75	0.75
		14	3	0.86	0.56	1	0.80	0.66	14	3	0.86	0.61	1	0.81	0.67
		15	3	0.84	0.72	1	0.80	0.78	15	3	0.87	0.64	1	0.84	0.72
		16	3	0.73	0.65	1	0.69	0.68	16	3	0.73	0.62	1	0.70	0.66
		17	3	0.90	0.58	1	0.86	0.66	17	3	0.90	0.59	1	0.88	0.65
		18	6	0.64	0.57	2	0.59	0.55	18	6	0.49	0.49	2	0.43	0.49
RLA	7	19	3	0.73	0.32	1	0.68	0.45	19	3	0.72	0.39	1	0.68	0.47
		20	3	0.81	0.64	1	0.73	0.74	20	3	0.84	0.64	1	0.79	0.70
		21	3	0.85	0.65	1	0.77	0.76	21	3	0.86	0.69	1	0.81	0.73
		22	3	0.78	0.63	1	0.69	0.74	22	3	0.80	0.66	1	0.75	0.69
		23	3	0.83	0.63	1	0.74	0.72	23	3	0.84	0.67	1	0.77	0.71
		24	3	0.82	0.60	1	0.72	0.69	24	3	0.78	0.60	1	0.73	0.65
		25	3	0.78	0.57	1	0.71	0.64	25	3	0.76	0.50	1	0.70	0.58
		26	6	0.82	0.69	2	0.77	0.75	26	6	0.82	0.53	2	0.76	0.63
		27	3	0.76	0.70	1	0.72	0.65	27	3	0.77	0.69	1	0.74	0.71
		28	3	0.83	0.64	1	0.79	0.71	28	3	0.83	0.69	1	0.80	0.74
		29	3	0.78	0.61	1	0.72	0.69	29	3	0.78	0.66	1	0.74	0.73
		30	3	0.73	0.55	1	0.68	0.62	30	3	0.70	0.54	1	0.66	0.60
		31	3	0.53	0.40	1	0.46	0.48	31	3	0.53	0.39	1	0.47	0.43
		32	3	0.62	0.65	1	0.57	0.66	32	3	0.62	0.50	1	0.55	0.53
		33	3	0.57	0.57	1	0.52	0.60	33	3	0.55	0.55	1	0.49	0.58
		34	3	0.58	0.59	1	0.53	0.62	34	3	0.59	0.54	1	0.53	0.56
		35	3	0.76	0.56	1	0.69	0.65	35	3	0.73	0.57	1	0.69	0.63
		36	3	0.84	0.64	1	0.78	0.73	36	3	0.82	0.63	1	0.78	0.71
		37	3	0.49	0.54	1	0.45	0.51	37	3	0.47	0.52	1	0.44	0.51

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008			
			With		Without		With		Without		With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	0.04	-0.10	0.06	-0.04	-0.01	0.07	-0.01	-0.01	0.02	0.01	0.02	0.02
		2	–	–	–	–	-0.07	-0.05	-0.08	-0.04	0.05	0.06	0.07	0.04
		3	–	–	–	–	-0.07	0.10	-0.07	0.00	0.01	-0.14	0.03	-0.17
		4	0.07	-0.04	0.08	0.01	-0.02	0.00	-0.01	-0.02	0.00	0.02	0.00	-0.03
		5	–	–	–	–	-0.03	-0.09	-0.05	-0.02	-0.01	0.08	0.00	0.10
		6	0.02	-0.07	0.02	-0.05	0.02	0.02	0.03	0.01	-0.01	0.01	0.00	-0.02
		7	–	–	–	–	0.00	0.04	-0.01	0.06	0.00	0.03	0.02	-0.03
		8	0.11	-0.10	0.11	-0.04	-0.04	-0.04	-0.06	-0.04	0.02	0.05	0.04	0.00
		9	0.07	-0.04	0.07	0.00	-0.06	0.05	-0.06	0.01	0.03	0.07	0.04	0.07
		10	0.08	0.01	0.08	0.03	-0.06	0.03	-0.08	0.03	0.02	0.04	0.04	0.00
		11	0.07	-0.01	0.06	0.08	0.01	-0.04	0.00	-0.02	-0.01	0.13	0.01	0.06
		12	0.08	0.02	0.08	0.08	-0.01	0.00	-0.02	-0.01	-0.03	0.11	-0.02	0.03
		13	0.05	-0.17	0.06	-0.08	-0.02	0.06	-0.02	-0.02	-0.01	0.08	-0.01	0.08
		14	0.06	-0.08	0.07	-0.04	-0.03	-0.03	-0.04	-0.02	0.00	0.05	0.01	0.01
		15	–	–	–	–	-0.06	0.05	-0.07	0.05	0.03	-0.08	0.04	-0.06
		16	–	–	–	–	0.03	0.06	0.03	0.04	0.00	-0.03	0.01	-0.02
		17	0.03	-0.01	0.05	-0.02	0.01	0.01	-0.01	0.04	0.00	0.01	0.02	-0.01
		18	–	–	–	–	0.14	0.06	0.23	0.11	-0.15	-0.08	-0.16	-0.06
RLA	7	19	0.02	-0.08	0.05	-0.06	0.00	-0.03	-0.01	-0.01	-0.01	0.07	0.00	0.02
		20	0.07	-0.07	0.09	-0.11	-0.05	0.13	-0.08	0.17	0.03	0.00	0.06	-0.04
		21	0.07	-0.04	0.09	-0.03	-0.06	0.04	-0.10	0.07	0.01	0.04	0.04	-0.03
		22	0.08	-0.08	0.09	-0.07	-0.08	0.03	-0.12	0.06	0.02	0.03	0.06	-0.05
		23	0.08	-0.10	0.10	-0.07	-0.05	-0.02	-0.08	0.02	0.01	0.04	0.03	-0.01
		24	0.09	-0.07	0.09	-0.08	0.03	0.06	-0.01	0.07	-0.04	0.00	0.01	-0.04
		25	0.12	-0.05	0.12	-0.01	-0.04	0.09	-0.05	0.05	-0.02	-0.07	-0.01	-0.06
		26	0.06	-0.08	0.08	-0.06	-0.03	0.14	-0.04	0.12	0.00	-0.16	-0.01	-0.12
		27	–	–	–	–	-0.06	0.01	-0.09	-0.03	0.01	-0.01	0.02	0.06
		28	–	–	–	–	-0.04	0.00	-0.04	0.01	0.00	0.05	0.01	0.03
		29	–	–	–	–	-0.02	0.01	-0.04	0.02	0.00	0.05	0.02	0.04
		30	–	–	–	–	-0.01	-0.10	-0.02	-0.09	-0.03	-0.01	-0.02	-0.02
		31	0.04	-0.12	0.03	-0.11	0.02	0.13	0.02	0.13	0.00	-0.01	0.01	-0.05
		32	–	–	–	–	0.00	0.08	0.02	0.05	0.00	-0.15	-0.02	-0.13
		33	–	–	–	–	0.00	-0.02	0.01	-0.03	-0.02	-0.02	-0.03	-0.02
		34	–	–	–	–	-0.01	0.00	0.00	-0.01	0.01	-0.05	0.00	-0.06
		35	0.09	0.08	0.10	0.07	-0.06	-0.01	-0.07	0.02	-0.03	0.01	0.00	-0.02
		36	0.12	0.06	0.13	0.02	-0.02	0.00	-0.04	0.05	-0.02	-0.01	0.00	-0.02
		37	–	–	–	–	0.00	0.05	0.00	0.06	-0.02	-0.02	-0.01	0.00

– indicates no item comparisons due to introduction of new item

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2006						2007						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
		1	3	0.90	0.48	1	0.89	0.51	1	3	0.94	0.42	1	0.92	0.53
		2	3	0.67	0.58	1	0.60	0.62	2	3	0.73	0.53	1	0.65	0.57
		3	3	0.80	0.60	1	0.75	0.68	3	3	0.83	0.53	1	0.77	0.58
		4	3	0.51	0.39	1	0.44	0.40	4	3	0.55	0.38	1	0.48	0.41
		5	3	0.92	0.53	1	0.89	0.59	5	3	0.95	0.45	1	0.92	0.49
		6	3	0.79	0.46	1	0.76	0.55	6	3	0.85	0.47	1	0.82	0.50
		7	3	0.58	0.63	1	0.52	0.65	7	3	0.68	0.59	1	0.63	0.66
		8	3	0.86	0.59	1	0.83	0.66	8	3	0.93	0.55	1	0.91	0.61
		9	3	0.86	0.67	1	0.82	0.71	9	3	0.88	0.55	1	0.84	0.65
		10	6	0.67	0.81	2	0.56	0.79	10	6	0.74	0.73	2	0.62	0.71
		11	3	0.83	0.61	1	0.78	0.70	11	3	0.87	0.51	1	0.84	0.54
		12	3	0.68	0.69	1	0.64	0.72	12	3	0.80	0.68	1	0.75	0.72
		13	3	0.89	0.66	1	0.85	0.68	13	3	0.91	0.52	1	0.89	0.55
		14	3	0.40	0.29	1	0.36	0.35	14	3	0.46	0.33	1	0.40	0.36
RLA	8	15	3	0.31	0.40	1	0.26	0.42	15	3	0.36	0.45	1	0.30	0.47
		16	3	0.38	0.41	1	0.33	0.45	16	3	0.47	0.45	1	0.41	0.47
		17	3	0.49	0.52	1	0.45	0.54	17	3	0.55	0.52	1	0.50	0.57
		18	3	0.75	0.55	1	0.68	0.59	18	3	0.71	0.46	1	0.64	0.55
		19	3	0.49	0.51	1	0.43	0.53	19	3	0.56	0.55	1	0.50	0.58
		20	3	0.47	0.57	1	0.42	0.60	20	3	0.57	0.53	1	0.53	0.57
		21	3	0.60	0.47	1	0.55	0.54	21	3	0.62	0.43	1	0.55	0.50
		22	3	0.84	0.59	1	0.80	0.64	22	3	0.87	0.44	1	0.83	0.50
		23	6	0.51	0.73	2	0.41	0.69	23	6	0.61	0.67	2	0.49	0.68
		24	3	0.91	0.58	1	0.87	0.65	24	3	0.90	0.58	1	0.86	0.60
		25	3	0.82	0.51	1	0.79	0.60	25	3	0.87	0.55	1	0.83	0.61
		26	6	0.32	0.52	2	0.32	0.52	26	6	0.43	0.53	2	0.38	0.49
		27	3	0.72	0.59	1	0.67	0.63	27	3	0.75	0.54	1	0.69	0.60
		28	3	0.46	0.59	1	0.42	0.58	28*	3	0.33	0.39	1	0.31	0.39
		29	6	0.67	0.71	2	0.59	0.71	29*	6	0.70	0.65	2	0.61	0.66
		30	3	0.27	0.46	1	0.25	0.48	30**	-	-	-	-	-	-

* new item in 2007

** new item in 2007, was suppressed

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2008						2009						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
		1	3	0.95	0.40	1	0.92	0.56	1	3	0.95	0.46	1	0.92	0.53
		2	3	0.71	0.49	1	0.64	0.56	2	3	0.73	0.54	1	0.66	0.61
		3	3	0.84	0.56	1	0.80	0.60	3	3	0.85	0.50	1	0.80	0.60
		4	3	0.49	0.38	1	0.44	0.42	4	3	0.57	0.33	1	0.52	0.38
		5	3	0.93	0.49	1	0.91	0.56	5	3	0.94	0.49	1	0.91	0.62
		6	3	0.84	0.48	1	0.81	0.54	6	3	0.86	0.36	1	0.82	0.52
		7	3	0.70	0.57	1	0.64	0.60	7	3	0.73	0.62	1	0.68	0.69
		8	3	0.90	0.58	1	0.87	0.64	8	3	0.87	0.48	1	0.85	0.59
		9	3	0.90	0.62	1	0.87	0.68	9	3	0.90	0.56	1	0.87	0.66
		10	6	0.78	0.65	2	0.68	0.68	10	6	0.76	0.73	2	0.64	0.72
		11	3	0.89	0.50	1	0.85	0.59	11	3	0.87	0.48	1	0.82	0.64
		12	3	0.82	0.65	1	0.78	0.72	12	3	0.78	0.64	1	0.74	0.69
		13	3	0.94	0.54	1	0.91	0.66	13	3	0.94	0.54	1	0.91	0.64
		14	3	0.47	0.32	1	0.43	0.40	14	3	0.42	0.22	1	0.38	0.31
RLA	8	15	3	0.35	0.47	1	0.31	0.53	15	3	0.29	0.35	1	0.26	0.39
		16	3	0.44	0.49	1	0.40	0.55	16	3	0.39	0.36	1	0.35	0.43
		17	3	0.56	0.57	1	0.53	0.60	17	3	0.52	0.42	1	0.48	0.51
		18	3	0.79	0.47	1	0.73	0.58	18	3	0.73	0.47	1	0.67	0.58
		19	3	0.58	0.50	1	0.53	0.55	19	3	0.54	0.47	1	0.50	0.55
		20	3	0.60	0.53	1	0.56	0.54	20	3	0.56	0.58	1	0.52	0.62
		21	3	0.69	0.48	1	0.64	0.54	21	3	0.64	0.44	1	0.58	0.52
		22	3	0.86	0.52	1	0.81	0.63	22	3	0.90	0.54	1	0.87	0.62
		23	6	0.68	0.64	2	0.56	0.62	23	6	0.70	0.68	2	0.54	0.68
		24	3	0.93	0.45	1	0.89	0.56	24	3	0.91	0.57	1	0.87	0.66
		25	3	0.86	0.40	1	0.82	0.50	25	3	0.91	0.56	1	0.87	0.65
		26	6	0.57	0.55	2	0.47	0.53	26	6	0.45	0.57	2	0.37	0.52
		27	3	0.78	0.50	1	0.74	0.60	27	3	0.81	0.57	1	0.75	0.63
		28*	6	0.62	0.59	2	0.47	0.58	28	6	0.61	0.63	2	0.50	0.60
		29	6	0.74	0.58	2	0.66	0.62	29	6	0.74	0.69	2	0.62	0.72
		30*	—	—	—	—	—	—							

* item suppressed in 2008

Table 46
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Reading/Language Arts
(continued)

Content	Grade	Item	2007 Minus 2006				2008 Minus 2007				2009 Minus 2008			
			With		Without		With		Without		With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	0.04	-0.06	0.03	0.02	0.01	-0.02	0.00	0.03	0.00	0.06	0.00	-0.03
		2	0.06	-0.05	0.05	-0.05	-0.02	-0.04	-0.01	-0.01	0.02	0.05	0.02	0.05
		3	0.03	-0.07	0.02	-0.10	0.01	0.03	0.03	0.02	0.01	-0.06	0.00	0.00
		4	0.04	-0.01	0.04	0.01	-0.06	0.00	-0.04	0.01	0.08	-0.05	0.08	-0.04
		5	0.03	-0.08	0.03	-0.10	-0.02	0.04	-0.01	0.07	0.01	0.00	0.00	0.06
		6	0.06	0.01	0.06	-0.05	-0.01	0.01	-0.01	0.04	0.02	-0.12	0.01	-0.02
		7	0.10	-0.04	0.11	0.01	0.02	-0.02	0.01	-0.06	0.03	0.05	0.04	0.09
		8	0.07	-0.04	0.08	-0.05	-0.03	0.03	-0.04	0.03	-0.03	-0.10	-0.02	-0.05
		9	0.02	-0.12	0.02	-0.06	0.02	0.07	0.03	0.03	0.00	-0.06	0.00	-0.02
		10	0.07	-0.08	0.06	-0.08	0.04	-0.08	0.06	-0.03	-0.02	0.08	-0.04	0.04
		11	0.04	-0.10	0.06	-0.16	0.02	-0.01	0.01	0.05	-0.02	-0.02	-0.03	0.05
		12	0.12	-0.01	0.11	0.00	0.02	-0.03	0.03	0.00	-0.04	-0.01	-0.04	-0.03
		13	0.02	-0.14	0.04	-0.13	0.03	0.02	0.02	0.11	0.00	0.00	0.00	-0.02
		14	0.06	0.04	0.04	0.01	0.01	-0.01	0.03	0.04	-0.05	-0.10	-0.05	-0.09
RLA	8	15	0.05	0.05	0.04	0.05	-0.01	0.02	0.01	0.06	-0.06	-0.12	-0.05	-0.14
		16	0.09	0.04	0.08	0.02	-0.03	0.04	-0.01	0.08	-0.05	-0.13	-0.05	-0.12
		17	0.06	0.00	0.05	0.03	0.01	0.05	0.03	0.03	-0.04	-0.15	-0.05	-0.09
		18	-0.04	-0.09	-0.04	-0.04	0.08	0.01	0.09	0.03	-0.06	0.00	-0.06	0.00
		19	0.07	0.04	0.07	0.05	0.02	-0.05	0.03	-0.03	-0.04	-0.03	-0.03	0.00
		20	0.10	-0.04	0.11	-0.03	0.03	0.00	0.03	-0.03	-0.04	0.05	-0.04	0.08
		21	0.02	-0.04	0.00	-0.04	0.07	0.05	0.09	0.04	-0.05	-0.04	-0.06	-0.02
		22	0.03	-0.15	0.03	-0.14	-0.01	0.08	-0.02	0.13	0.04	0.02	0.06	-0.01
		23	0.10	-0.06	0.08	-0.01	0.07	-0.03	0.07	-0.06	0.02	0.04	-0.02	0.06
		24	-0.01	0.00	-0.01	-0.05	0.03	-0.13	0.03	-0.04	-0.02	0.12	-0.02	0.10
		25	0.05	0.04	0.04	0.01	-0.01	-0.15	-0.01	-0.11	0.05	0.16	0.05	0.15
		26	0.11	0.01	0.06	-0.03	0.14	0.02	0.09	0.04	-0.12	0.02	-0.10	-0.01
		27	0.03	-0.05	0.02	-0.03	0.03	-0.04	0.05	0.00	0.03	0.07	0.01	0.03
		28	—	—	—	—	—	—	—	—	-0.01	0.04	0.03	0.02
		29	—	—	—	—	0.04	-0.07	0.05	-0.04	0.00	0.11	-0.04	0.10
		30	—	—	—	—	—	—	—	—	—	—	—	—

— indicates no item comparisons due to introduction of new/suppressed item

Table 47
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Science

Content	Grade	Item	2008						2009						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
SC	4	1	3	0.90	0.55	1	0.87	0.63	1	3	0.90	0.64	1	0.87	0.72
		2	3	0.88	0.54	1	0.85	0.65	2	3	0.86	0.59	1	0.82	0.69
		3	6	0.48	0.61	2	0.42	0.62	3	6	0.49	0.61	2	0.40	0.62
		4	6	0.49	0.55	2	0.42	0.55	4	6	0.44	0.43	2	0.36	0.48
		5	3	0.87	0.67	1	0.83	0.74	5	3	0.89	0.58	1	0.86	0.66
		6	3	0.71	0.53	1	0.66	0.60	6	3	0.74	0.44	1	0.70	0.56
		7	3	0.64	0.40	1	0.58	0.51	7	3	0.64	0.44	1	0.59	0.51
		8	3	0.84	0.63	1	0.81	0.71	8	3	0.81	0.49	1	0.78	0.59
		9	3	0.73	0.45	1	0.68	0.55	9	3	0.68	0.49	1	0.61	0.56
		10	3	0.72	0.52	1	0.68	0.58	10	3	0.70	0.43	1	0.64	0.52
		11	3	0.93	0.60	1	0.90	0.69	11	3	0.93	0.61	1	0.90	0.68
		12	3	0.91	0.58	1	0.88	0.70	12	3	0.92	0.63	1	0.90	0.71
		13	6	0.03	-0.18	2	0.01	0.06	13	6	0.56	0.53	2	0.44	0.59
		14	3	0.88	0.62	1	0.85	0.69	14	3	0.85	0.64	1	0.82	0.70
		15	3	0.87	0.74	1	0.84	0.78	15	3	0.88	0.70	1	0.83	0.76
		16	3	0.89	0.63	1	0.86	0.73	16	3	0.89	0.57	1	0.85	0.68
		17	3	0.69	0.55	1	0.65	0.61	17	3	0.72	0.53	1	0.66	0.61
		18	6	0.58	0.66	2	0.52	0.67	18	6	0.56	0.57	2	0.48	0.62
		19	3	0.89	0.66	1	0.85	0.72	19	3	0.86	0.60	1	0.83	0.65
		20	3	0.90	0.64	1	0.88	0.72	20	3	0.89	0.69	1	0.85	0.76
		21	3	0.87	0.63	1	0.85	0.70	21	3	0.87	0.63	1	0.84	0.71
		22	3	0.54	0.34	1	0.49	0.40	22	3	0.56	0.36	1	0.47	0.42
		23	3	0.93	0.69	1	0.91	0.72	23	3	0.93	0.58	1	0.90	0.70
		24	3	0.91	0.67	1	0.88	0.73	24	3	0.91	0.64	1	0.86	0.73
		25	3	0.73	0.52	1	0.69	0.58	25	3	0.72	0.39	1	0.64	0.50
		26	3	0.78	0.57	1	0.75	0.63	26	3	0.80	0.55	1	0.75	0.61
		27	3	0.85	0.58	1	0.83	0.65	27	3	0.87	0.65	1	0.83	0.70
		28	3	0.91	0.65	1	0.89	0.75	28	3	0.91	0.59	1	0.88	0.68
		29	3	0.83	0.51	1	0.81	0.59	29	3	0.81	0.56	1	0.74	0.64
		30	3	0.68	0.49	1	0.63	0.55	30	3	0.69	0.49	1	0.60	0.57

Table 47
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Science (continued)

Content	Grade	Item	2009 Minus 2008			
			With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	0.00	0.09	0.00	0.09
		2	-0.02	0.05	-0.03	0.04
		3	0.01	0.00	-0.02	0.00
		4	-0.05	-0.12	-0.06	-0.07
		5	0.02	-0.09	0.03	-0.08
		6	0.03	-0.09	0.04	-0.04
		7	0.00	0.04	0.01	0.00
		8	-0.03	-0.14	-0.03	-0.12
		9	-0.05	0.04	-0.07	0.01
		10	-0.02	-0.09	-0.04	-0.06
		11	0.00	0.01	0.00	-0.01
		12	0.01	0.05	0.02	0.01
		13	0.53	0.71	0.43	0.53
		14	-0.03	0.02	-0.03	0.01
SC	4	15	0.01	-0.04	-0.01	-0.02
		16	0.00	-0.06	-0.01	-0.05
		17	0.03	-0.02	0.01	0.00
		18	-0.02	-0.09	-0.04	-0.05
		19	-0.03	-0.06	-0.02	-0.07
		20	-0.01	0.05	-0.03	0.04
		21	0.00	0.00	-0.01	0.01
		22	0.02	0.02	-0.02	0.02
		23	0.00	-0.11	-0.01	-0.02
		24	0.00	-0.03	-0.02	0.00
		25	-0.01	-0.13	-0.05	-0.08
		26	0.02	-0.02	0.00	-0.02
		27	0.02	0.07	0.00	0.05
		28	0.00	-0.06	-0.01	-0.07
		29	-0.02	0.05	-0.07	0.05
		30	0.01	0.00	-0.03	0.02

Table 47
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Science (continued)

Content	Grade	Item	2008						2009						
			With Level of Assistance			Without Level of Assistance			With Level of Assistance			Without Level of Assistance			
			Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Max Score	Item	Item-Test	
Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation	Points	Difficulty	Correlation				
		1	3	0.90	0.61	1	0.86	0.71	1	3	0.88	0.65	1	0.84	0.72
		2	3	0.88	0.46	1	0.85	0.60	2	3	0.87	0.54	1	0.84	0.64
		3	3	0.81	0.60	1	0.77	0.67	3	3	0.76	0.58	1	0.70	0.64
		4	3	0.74	0.41	1	0.69	0.52	4	3	0.70	0.50	1	0.63	0.60
		5	6	0.55	0.53	2	0.42	0.57	5	6	0.44	0.38	2	0.36	0.48
		6	6	0.67	0.54	2	0.56	0.62	6	6	0.50	0.56	2	0.43	0.62
		7	3	0.91	0.46	1	0.89	0.62	7	3	0.91	0.62	1	0.86	0.70
		8	3	0.83	0.65	1	0.79	0.72	8	3	0.86	0.66	1	0.81	0.71
		9	3	0.88	0.55	1	0.84	0.65	9	3	0.87	0.54	1	0.82	0.67
		10	6	0.80	0.59	2	0.60	0.63	10	6	0.81	0.63	2	0.65	0.71
		11	3	0.65	0.39	1	0.62	0.45	11	3	0.67	0.34	1	0.62	0.46
		12	3	0.84	0.44	1	0.80	0.58	12	3	0.80	0.52	1	0.75	0.63
		13	6	0.69	0.62	2	0.59	0.66	13	6	0.70	0.59	2	0.59	0.69
		14	3	0.94	0.60	1	0.91	0.70	14	3	0.91	0.58	1	0.88	0.70
		15	3	0.58	0.50	1	0.52	0.56	15	3	0.57	0.52	1	0.48	0.58
		16	3	0.84	0.53	1	0.81	0.62	16	3	0.87	0.49	1	0.83	0.61
SC	6	17	3	0.66	0.34	1	0.62	0.39	17	3	0.70	0.40	1	0.63	0.52
		18	3	0.91	0.53	1	0.89	0.64	18	3	0.86	0.64	1	0.82	0.72
		19	3	0.87	0.53	1	0.84	0.66	19	3	0.85	0.60	1	0.80	0.65
		20	3	0.41	0.18	1	0.38	0.22	20	3	0.41	0.29	1	0.36	0.38
		21	3	0.58	0.37	1	0.56	0.43	21	3	0.60	0.41	1	0.55	0.51
		22	3	0.62	0.44	1	0.59	0.47	22	3	0.66	0.55	1	0.60	0.61
		23	3	0.76	0.43	1	0.72	0.52	23	3	0.76	0.55	1	0.72	0.63
		24	3	0.89	0.59	1	0.86	0.69	24	3	0.87	0.57	1	0.83	0.65
		25	3	0.80	0.57	1	0.76	0.67	25	3	0.83	0.62	1	0.79	0.73
		26	3	0.73	0.39	1	0.68	0.48	26	3	0.69	0.43	1	0.64	0.53
		27	3	0.84	0.54	1	0.81	0.63	27	3	0.84	0.69	1	0.78	0.78
		28	3	0.84	0.64	1	0.81	0.67	28	3	0.83	0.67	1	0.79	0.72
		29	3	0.84	0.60	1	0.80	0.69	29	3	0.81	0.62	1	0.75	0.73
		30	3	0.87	0.55	1	0.84	0.64	30	3	0.82	0.50	1	0.76	0.63
		31	3	0.83	0.58	1	0.79	0.65	31	3	0.85	0.62	1	0.80	0.71
		32	6	0.42	0.29	2	0.32	0.37	32	6	0.62	0.59	2	0.46	0.62
		33	3	0.82	0.64	1	0.80	0.71	33	3	0.84	0.66	1	0.80	0.71

Table 47
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Science (continued)

Content	Grade	Item	2009 Minus 2008			
			With		Without	
			Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	-0.02	0.04	-0.02	0.01
		2	-0.01	0.08	-0.01	0.04
		3	-0.05	-0.02	-0.07	-0.03
		4	-0.04	0.09	-0.06	0.08
		5	-0.11	-0.15	-0.06	-0.09
		6	-0.17	0.02	-0.13	0.00
		7	0.00	0.16	-0.03	0.08
		8	0.03	0.01	0.02	-0.01
		9	-0.01	-0.01	-0.02	0.02
		10	0.01	0.04	0.05	0.08
		11	0.02	-0.05	0.00	0.01
		12	-0.04	0.08	-0.05	0.05
		13	0.01	-0.03	0.00	0.03
		14	-0.03	-0.02	-0.03	0.00
		15	-0.01	0.02	-0.04	0.02
		16	0.03	-0.04	0.02	-0.01
SC	6	17	0.04	0.06	0.01	0.13
		18	-0.05	0.11	-0.07	0.08
		19	-0.02	0.07	-0.04	-0.01
		20	0.00	0.11	-0.02	0.16
		21	0.02	0.04	-0.01	0.08
		22	0.04	0.11	0.01	0.14
		23	0.00	0.12	0.00	0.11
		24	-0.02	-0.02	-0.03	-0.04
		25	0.03	0.05	0.03	0.06
		26	-0.04	0.04	-0.04	0.05
		27	0.00	0.15	-0.03	0.15
		28	-0.01	0.03	-0.02	0.05
		29	-0.03	0.02	-0.05	0.04
		30	-0.05	-0.05	-0.08	-0.01
		31	0.02	0.04	0.01	0.06
		32	0.20	0.30	0.14	0.25
		33	0.02	0.02	0.00	0.00

Table 47
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Science (continued)

		2008							2009						
		With Level of Assistance			Without Level of Assistance				With Level of Assistance				Without Level of Assistance		
Content	Grade	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test	Item	Max Score	Item	Item-Test	Max Score	Item	Item-Test
			Points	Difficulty	Correlation	Points	Difficulty	Correlation	Item	Points	Difficulty	Correlation	Points	Difficulty	Correlation
		1	3	0.73	0.51	1	0.69	0.60	1	3	0.71	0.53	1	0.65	0.60
		2	3	0.81	0.61	1	0.76	0.68	2	3	0.86	0.62	1	0.82	0.70
		3	3	0.73	0.45	1	0.69	0.56	3	3	0.77	0.49	1	0.73	0.57
		4	3	0.71	0.47	1	0.67	0.58	4	3	0.72	0.54	1	0.68	0.61
		5	3	0.59	0.35	1	0.55	0.44	5	3	0.59	0.38	1	0.55	0.40
		6	6	0.52	0.51	2	0.44	0.57	6	6	0.54	0.50	2	0.46	0.56
		7	3	0.70	0.35	1	0.65	0.49	7	3	0.76	0.61	1	0.71	0.68
		8	3	0.81	0.46	1	0.76	0.62	8	3	0.83	0.53	1	0.79	0.66
		9	3	0.82	0.62	1	0.76	0.72	9	3	0.84	0.60	1	0.80	0.68
		10	6	0.86	0.60	2	0.75	0.74	10	6	0.83	0.69	2	0.73	0.80
		11	3	0.65	0.41	1	0.61	0.52	11	3	0.70	0.48	1	0.65	0.61
		12	3	0.80	0.49	1	0.75	0.61	12	3	0.81	0.63	1	0.77	0.70
		13	6	0.85	0.60	2	0.71	0.77	13	6	0.83	0.67	2	0.72	0.78
		14	3	0.58	0.50	1	0.52	0.58	14	3	0.67	0.57	1	0.62	0.63
		15	3	0.50	0.36	1	0.48	0.44	15	3	0.53	0.35	1	0.50	0.43
		16	3	0.77	0.56	1	0.72	0.64	16	3	0.81	0.55	1	0.77	0.62
SC	11	17	3	0.72	0.58	1	0.67	0.64	17	3	0.77	0.61	1	0.73	0.66
		18	3	0.44	0.30	1	0.39	0.37	18	3	0.44	0.33	1	0.39	0.38
		19	3	0.67	0.52	1	0.62	0.58	19	3	0.77	0.58	1	0.72	0.67
		20	6	0.60	0.46	2	0.53	0.57	20	6	0.64	0.64	2	0.57	0.68
		21	3	0.64	0.45	1	0.59	0.54	21	3	0.68	0.52	1	0.64	0.60
		22	3	0.80	0.44	1	0.75	0.56	22	3	0.77	0.57	1	0.72	0.65
		23	3	0.46	0.22	1	0.41	0.29	23	3	0.50	0.30	1	0.45	0.38
		24	3	0.59	0.54	1	0.53	0.58	24	3	0.63	0.52	1	0.57	0.57
		25	3	0.81	0.49	1	0.76	0.61	25	3	0.85	0.55	1	0.81	0.65
		26	3	0.53	0.16	1	0.47	0.31	26	3	0.52	0.29	1	0.46	0.41
		27	3	0.87	0.50	1	0.83	0.63	27	3	0.86	0.62	1	0.83	0.72
		28	3	0.72	0.35	1	0.69	0.44	28	3	0.74	0.43	1	0.71	0.55
		29	3	0.82	0.60	1	0.78	0.71	29	3	0.83	0.64	1	0.79	0.72
		30	3	0.73	0.62	1	0.68	0.67	30	3	0.75	0.61	1	0.70	0.68
		31	6	0.87	0.62	2	0.75	0.71	31	6	0.82	0.68	2	0.71	0.72
		32	3	0.74	0.49	1	0.70	0.55	32	3	0.75	0.44	1	0.71	0.52
		33	3	0.72	0.57	1	0.67	0.67	33	3	0.74	0.51	1	0.69	0.60

Table 47
Comparisons of Longitudinal Item Level Statistics With and Without Level of Assistance for Science (continued)

		2009 Minus 2008				
		With		Without		
Content	Grade	Item	Item Difficulty	Item-Test Correlation	Item Difficulty	Item-Test Correlation
		1	-0.02	0.02	-0.04	0.00
		2	0.05	0.01	0.06	0.02
		3	0.04	0.04	0.04	0.01
		4	0.01	0.07	0.01	0.03
		5	0.00	0.03	0.00	-0.04
		6	0.02	-0.01	0.02	-0.01
		7	0.06	0.26	0.06	0.19
		8	0.02	0.07	0.03	0.04
		9	0.02	-0.02	0.04	-0.04
		10	-0.03	0.09	-0.02	0.06
		11	0.05	0.07	0.04	0.09
		12	0.01	0.14	0.02	0.09
		13	-0.02	0.07	0.01	0.01
		14	0.09	0.07	0.10	0.05
		15	0.03	-0.01	0.02	-0.01
		16	0.04	-0.01	0.05	-0.02
SC	11	17	0.05	0.03	0.06	0.02
		18	0.00	0.03	0.00	0.01
		19	0.10	0.06	0.10	0.09
		20	0.04	0.18	0.04	0.11
		21	0.04	0.07	0.05	0.06
		22	-0.03	0.13	-0.03	0.09
		23	0.04	0.08	0.04	0.09
		24	0.04	-0.02	0.04	-0.01
		25	0.04	0.06	0.05	0.04
		26	-0.01	0.13	-0.01	0.10
		27	-0.01	0.12	0.00	0.09
		28	0.02	0.08	0.02	0.11
		29	0.01	0.04	0.01	0.01
		30	0.02	-0.01	0.02	0.01
		31	-0.05	0.06	-0.04	0.01
		32	0.01	-0.05	0.01	-0.03
		33	0.02	-0.06	0.02	-0.07

Table 48
Longitudinal Summary of *P*-values for Mathematics

Content	Grade	High <i>P</i> -value				Mean <i>P</i> -value				Low <i>P</i> -value			
		2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009
MA	3	0.87	0.91	0.92	0.90	0.68	0.72	0.72	0.70	0.24	0.25	0.30	0.32
	4	0.87	0.89	0.90	0.91	0.69	0.71	0.74	0.74	0.26	0.31	0.39	0.36
	5	0.86	0.91	0.92	0.92	0.66	0.75	0.77	0.79	0.46	0.54	0.58	0.65
	6	0.87	0.88	0.88	1.00	0.66	0.67	0.68	0.69	0.44	0.25	0.28	0.29
	7	0.87	0.94	0.93	0.92	0.64	0.69	0.70	0.70	0.26	0.24	0.31	0.26
	8	0.90	0.93	0.93	0.92	0.62	0.65	0.67	0.66	0.29	0.33	0.32	0.30
	10	0.83	0.90	0.89	–	0.52	0.61	0.59	–	0.17	0.29	0.27	–
11	–	–	–	0.90	–	–	–	0.62	–	–	–	0.31	

*There is no grade 10 data for 2009 or grade 11 data for 2006, 2007, and 2008 due to changes in the grade level assessed in 2009.

Content	Grade	High <i>P</i> -value Differences			Mean <i>P</i> -value Differences			Low <i>P</i> -value Differences		
		2007	2008	2009	2007	2008	2009	2007	2008	2009
		Minus	Minus	Minus	Minus	Minus	Minus	Minus	Minus	Minus
		2006	2007	2008	2006	2007	2008	2006	2007	2008
MA	3	0.04	0.01	-0.02	0.04	0.00	-0.02	0.01	0.05	0.02
	4	0.02	0.01	0.01	0.02	0.03	0.00	0.05	0.08	-0.03
	5	0.05	0.01	0.00	0.09	0.02	0.02	0.08	0.04	0.07
	6	0.01	0.00	0.12	0.01	0.01	0.01	-0.19	0.03	0.01
	7	0.07	-0.01	-0.01	0.05	0.01	0.00	-0.02	0.07	-0.05
8	0.03	0.00	-0.01	0.03	0.02	-0.01	0.04	-0.01	-0.02	

Table 49
Longitudinal Summary of *P*-values for Reading/Language Arts

Content	Grade	High <i>P</i> -value				Mean <i>P</i> -value				Low <i>P</i> -value			
		2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009
RLA	3	0.92	0.95	0.94	0.93	0.72	0.76	0.78	0.74	0.45	0.49	0.53	0.52
	4	0.91	0.91	0.95	0.93	0.74	0.74	0.79	0.78	0.52	0.51	0.58	0.55
	5	0.85	0.90	0.92	0.91	0.63	0.69	0.71	0.73	0.36	0.39	0.43	0.43
	6	0.95	0.94	0.95	0.94	0.76	0.78	0.77	0.78	0.50	0.55	0.62	0.55
	7	0.92	0.94	0.93	0.95	0.73	0.80	0.78	0.78	0.44	0.49	0.49	0.47
	8	0.92	0.95	0.95	0.95	0.65	0.70	0.73	0.72	0.27	0.33	0.35	0.29
	10	0.88	0.95	0.94	–	0.70	0.79	0.79	–	0.48	0.55	0.57	–
11	–	–	–	0.93	–	–	–	0.80	–	–	–	0.60	

*There is no grade 10 data for 2009 or grade 11 data for 2006, 2007, and 2008 due to changes in the grade level assessed in 2009.

Content	Grade	High <i>P</i> -value Differences			Mean <i>P</i> -value Differences			Low <i>P</i> -value Differences		
		2007	2008	2009	2007	2008	2009	2007	2008	2009
		Minus	Minus	Minus	Minus	Minus	Minus	Minus	Minus	Minus
		2006	2007	2008	2006	2007	2008	2006	2007	2008
RLA	3	0.03	-0.01	-0.01	0.04	0.02	-0.04	0.04	0.04	-0.01
	4	0.00	0.04	-0.02	0.00	0.05	-0.01	-0.01	0.07	-0.03
	5	0.05	0.02	-0.01	0.06	0.02	0.02	0.03	0.04	0.00
	6	-0.01	0.01	-0.01	0.02	-0.01	0.01	0.05	0.07	-0.07
	7	0.02	-0.01	0.02	0.07	-0.02	0.00	0.05	0.00	-0.02
8	0.03	0.00	0.00	0.05	0.03	-0.01	0.06	0.02	-0.06	

Table 50
Longitudinal Summary of *P*-values for Science

Content	Grade	High <i>P</i> -value		Mean <i>P</i> -value		Low <i>P</i> -value	
		2008	2009	2008	2009	2008	2009
SC	4	0.93	0.93	0.76	0.78	0.03	0.44
	6	0.94	0.91	0.76	0.76	0.41	0.41
	11	0.87	0.86	0.70	0.72	0.44	0.44

Content	Grade	2009 minus 2008 Difference		
		High <i>P</i> -value	Mean <i>P</i> -value	Low <i>P</i> -value
SC	4	0.00	0.02	0.41
	6	-0.03	0.00	0.00
	11	-0.01	0.02	0.00

Table 51
Longitudinal Summary of Point Biserials for Mathematics

Content	Grade	High Point Biserial				Mean Point Biserial				Low Point Biserial			
		2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009
MA	3	0.76	0.72	0.69	0.70	0.59	0.55	0.54	0.56	0.27	0.32	0.34	0.32
	4	0.76	0.78	0.77	0.75	0.61	0.62	0.60	0.60	0.17	0.27	0.21	0.32
	5	0.77	0.74	0.79	0.79	0.59	0.60	0.59	0.61	0.43	0.35	0.35	0.31
	6	0.72	0.73	0.71	0.73	0.53	0.54	0.51	0.53	0.23	0.28	0.13	0.10
	7	0.63	0.63	0.65	0.66	0.50	0.47	0.51	0.50	0.10	0.22	0.25	0.15
	8	0.67	0.63	0.62	0.65	0.51	0.45	0.46	0.44	0.17	0.14	0.20	0.13
	10	0.73	0.66	0.67	–	0.57	0.53	0.52	–	0.31	0.36	0.29	–
	11	–	–	–	0.73	–	–	–	0.54	–	–	–	0.37

*There is no grade 10 data for 2009 or grade 11 data for 2006, 2007, and 2008 due to changes in the grade level assessed in 2009.

Content	Grade	High Point Biserial Differences			Mean Point Biserial Differences			Low Point Biserial Differences		
		2007	2008	2009	2007	2008	2009	2007	2008	2009
		Minus	Minus	Minus	Minus	Minus	Minus	Minus	Minus	Minus
		2006	2007	2008	2006	2007	2008	2006	2007	2008
MA	3	-0.04	-0.03	0.01	-0.04	-0.01	0.02	0.05	0.02	-0.02
	4	0.02	-0.01	-0.02	0.01	-0.02	0.00	0.10	-0.06	0.11
	5	-0.03	0.05	0.00	0.01	-0.01	0.02	-0.08	0.00	-0.04
	6	0.01	-0.02	0.02	0.01	-0.03	0.02	0.05	-0.15	-0.03
	7	0.00	0.02	0.01	-0.03	0.04	-0.01	0.12	0.03	-0.10
	8	-0.04	-0.01	0.03	-0.06	0.01	-0.02	-0.03	0.06	-0.07

Table 52
Longitudinal Summary of Point Biserials for Reading/Language Arts

Content	Grade	High Point Biserial				Mean Point Biserial				Low Point Biserial			
		2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009
RLA	3	0.83	0.79	0.77	0.78	0.64	0.57	0.56	0.59	0.40	0.32	0.34	0.35
	4	0.77	0.82	0.78	0.77	0.59	0.59	0.61	0.58	0.35	0.28	0.37	0.39
	5	0.72	0.73	0.74	0.70	0.56	0.57	0.59	0.58	0.27	0.33	0.34	0.24
	6	0.69	0.71	0.67	0.73	0.59	0.60	0.55	0.62	0.48	0.38	0.36	0.37
	7	0.75	0.69	0.72	0.72	0.60	0.56	0.58	0.59	0.39	0.27	0.32	0.39
	8	0.81	0.73	0.65	0.73	0.56	0.52	0.52	0.51	0.29	0.33	0.32	0.22
	10	0.80	0.76	0.75	–	0.70	0.61	0.61	–	0.44	0.44	0.38	–
11	–	–	–	0.79	–	–	–	0.62	–	–	–	0.39	

*There is no grade 10 data for 2009 or grade 11 data for 2006, 2007, and 2008 due to changes in the grade level assessed in 2009.

Content	Grade	High Point Biserial Differences			Mean Point Biserial Differences			Low Point Biserial Differences		
		2007	2008	2009	2007	2008	2009	2007	2008	2009
		Minus	Minus	Minus	Minus	Minus	Minus	Minus	Minus	Minus
		2006	2007	2008	2006	2007	2008	2006	2007	2008
RLA	3	-0.04	-0.02	0.01	-0.07	-0.01	0.03	-0.08	0.02	0.01
	4	0.05	-0.04	-0.01	0.00	0.02	-0.03	-0.07	0.09	0.02
	5	0.01	0.01	-0.04	0.01	0.02	-0.01	0.06	0.01	-0.10
	6	0.02	-0.04	0.06	0.01	-0.05	0.07	-0.10	-0.02	0.01
	7	-0.06	0.03	0.00	-0.04	0.02	0.01	-0.12	0.05	0.07
8	-0.08	-0.08	0.08	-0.04	0.00	-0.01	0.04	-0.01	-0.10	

Table 53
Longitudinal Summary of Point Biserials for Science

Content	Grade	High Point Biserial		Mean Point Biserial		Low Point Biserial	
		2008	2009	2008	2009	2008	2009
SC	4	0.74	0.70	0.55	0.56	-0.18	0.36
	6	0.65	0.69	0.51	0.55	0.18	0.29
	11	0.62	0.69	0.48	0.53	0.16	0.29

Content	Grade	2009 minus 2008 Difference		
		High Point Biserial	Mean Point Biserial	Low Point Biserial
SC	4	-0.04	0.01	0.54
	6	0.04	0.04	0.11
	11	0.07	0.05	0.13

Table 54
Longitudinal Summary of Impact Data for Mathematics

Content	Grade	Associated Impact Data - 2006					Associated Impact Data - 2007				
		Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above	Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above
MA	3	4%	29%	39%	29%	67%	1%	25%	30%	44%	75%
	4	4%	29%	36%	31%	67%	3%	21%	31%	45%	76%
	5	4%	29%	22%	45%	67%	2%	18%	12%	68%	80%
	6	4%	31%	36%	29%	65%	3%	28%	32%	37%	69%
	7	5%	31%	37%	27%	64%	2%	25%	38%	35%	73%
	8	6%	30%	26%	38%	64%	3%	22%	35%	39%	74%
	10	10%	29%	47%	14%	61%	4%	22%	50%	24%	75%
	11	—	—	—	—	—	—	—	—	—	

*There is no grade 10 data for 2009 or grade 11 data for 2006, 2007, and 2008 due to changes in the grade level assessed in 2009.

Content	Grade	Associated Impact Data - 2008					Associated Impact Data - 2009				
		Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above	Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above
MA	3	1%	26%	26%	46%	73%	1%	29%	26%	43%	69%
	4	2%	22%	23%	53%	76%	1%	22%	23%	54%	77%
	5	0%	16%	12%	72%	84%	1%	15%	12%	72%	84%
	6	2%	26%	34%	38%	72%	1%	29%	30%	40%	70%
	7	1%	30%	35%	35%	69%	3%	26%	29%	43%	71%
	8	3%	19%	38%	40%	78%	2%	22%	33%	42%	76%
	10	5%	23%	47%	25%	72%	—	—	—	—	—
	11	—	—	—	—	—	3%	24%	41%	31%	73%

*There is no grade 10 data for 2009 or grade 11 data for 2006, 2007, and 2008 due to changes in the grade level assessed in 2009.

Table 55
Longitudinal Summary of Impact Data for Reading/Language Arts

Content	Grade	Associated Impact Data - 2006					Associated Impact Data - 2007				
		Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above	Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above
RLA	3	9%	23%	38%	30%	68%	2%	26%	37%	35%	72%
	4	6%	28%	41%	25%	66%	9%	26%	48%	16%	65%
	5	8%	27%	31%	34%	65%	7%	19%	34%	40%	74%
	6	6%	28%	29%	38%	66%	3%	29%	17%	51%	68%
	7	4%	29%	26%	41%	67%	1%	17%	25%	57%	82%
	8	7%	26%	29%	38%	67%	5%	19%	36%	41%	76%
	10	10%	23%	35%	32%	67%	2%	21%	26%	50%	76%
	11	—	—	—	—	—	—	—	—	—	

*There is no grade 10 data for 2009 or grade 11 data for 2006, 2007, and 2008 due to changes in the grade level assessed in 2009.

Content	Grade	Associated Impact Data - 2008					Associated Impact Data - 2009				
		Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above	Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above
RLA	3	2%	26%	32%	41%	72%	3%	30%	28%	39%	67%
	4	4%	27%	37%	32%	68%	3%	27%	41%	29%	69%
	5	6%	17%	30%	47%	76%	5%	16%	28%	50%	78%
	6	4%	27%	22%	47%	69%	7%	24%	17%	52%	69%
	7	0%	22%	22%	55%	77%	2%	18%	26%	54%	80%
	8	3%	13%	31%	53%	84%	2%	18%	30%	49%	79%
	10	3%	19%	30%	49%	79%	—	—	—	—	—
	11	—	—	—	—	2%	21%	26%	51%	77%	

*There is no grade 10 data for 2009 or grade 11 data for 2006, 2007, and 2008 due to changes in the grade level assessed in 2009.

Table 56
Longitudinal Summary of Impact Data for Science

Content	Grade	Associated Impact Data - 2008					Associated Impact Data - 2009				
		Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above	Novice	Partial Mastery	Mastery	Above Mastery	Mastery & Above
SC	4	10%	24%	40%	25%	65%	9%	23%	36%	32%	68%
	6	8%	25%	41%	26%	67%	10%	26%	38%	26%	64%
	11	12%	29%	39%	20%	59%	15%	19%	39%	26%	65%

Figures 1–25

Figure 1
Total Number of Students Participating in WV APTA by Grade and Content

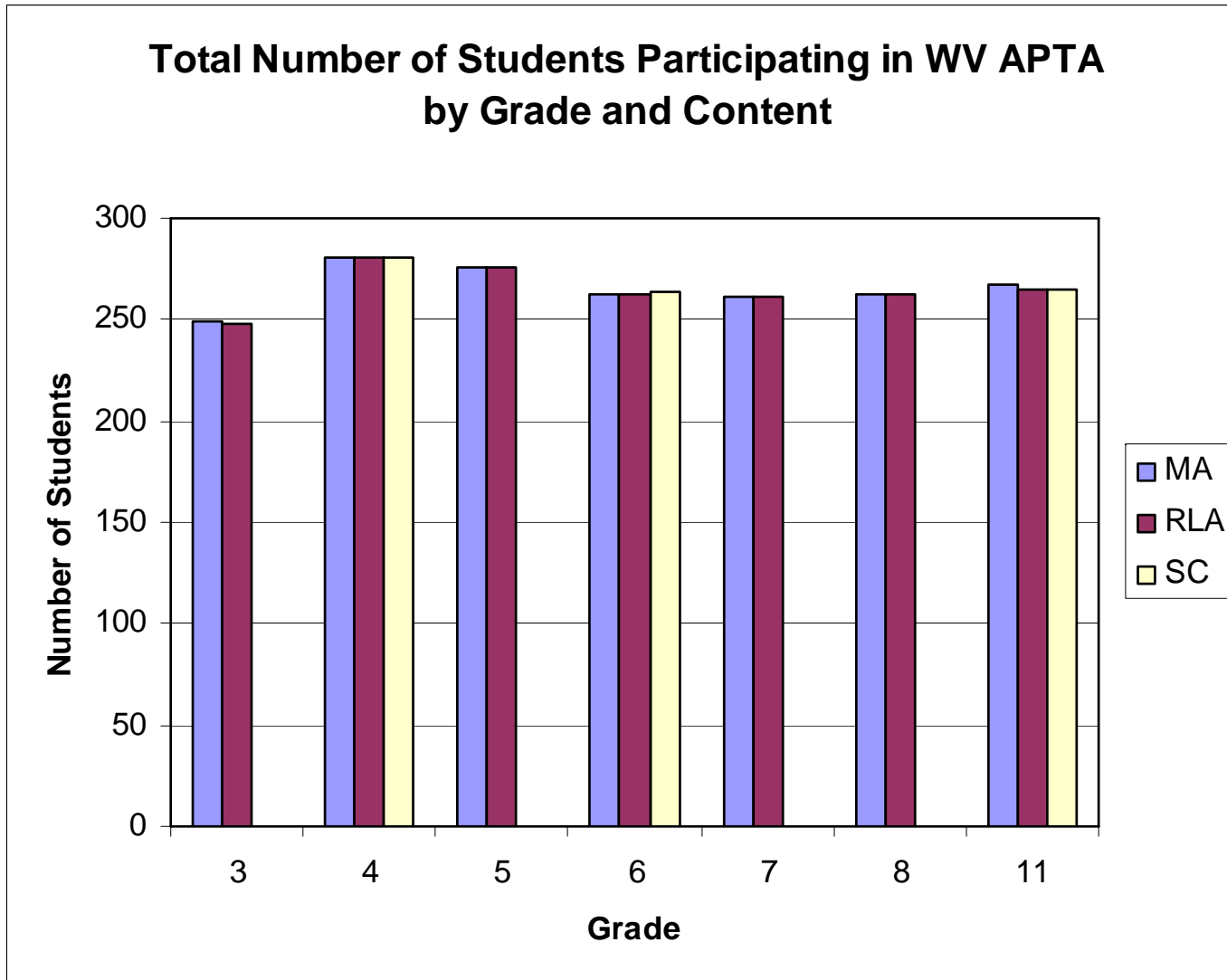


Figure 2
Percent of Participating Students by Degree of Mental Impairment

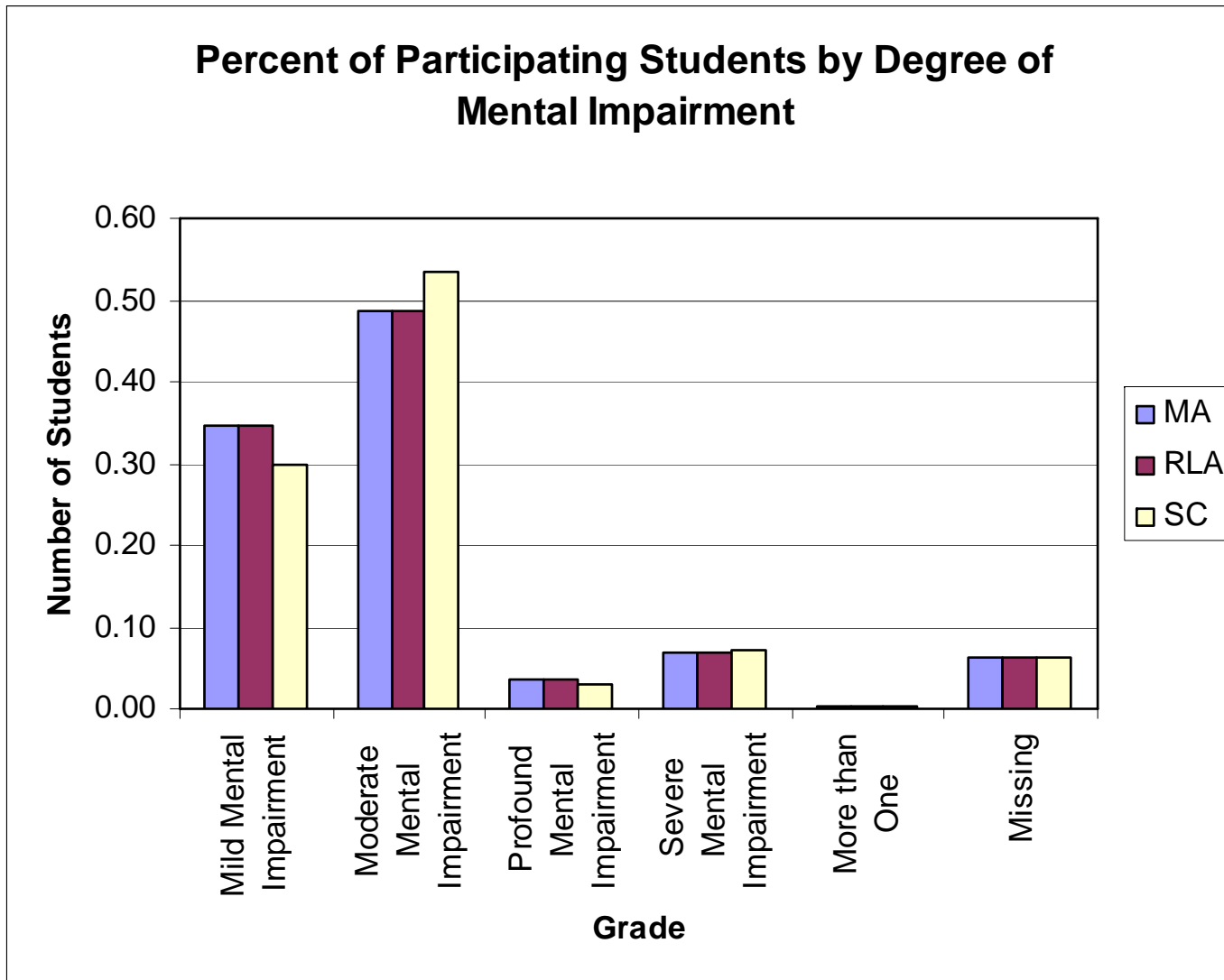


Figure 3
Percent of Students Utilizing Accommodations in Mathematics

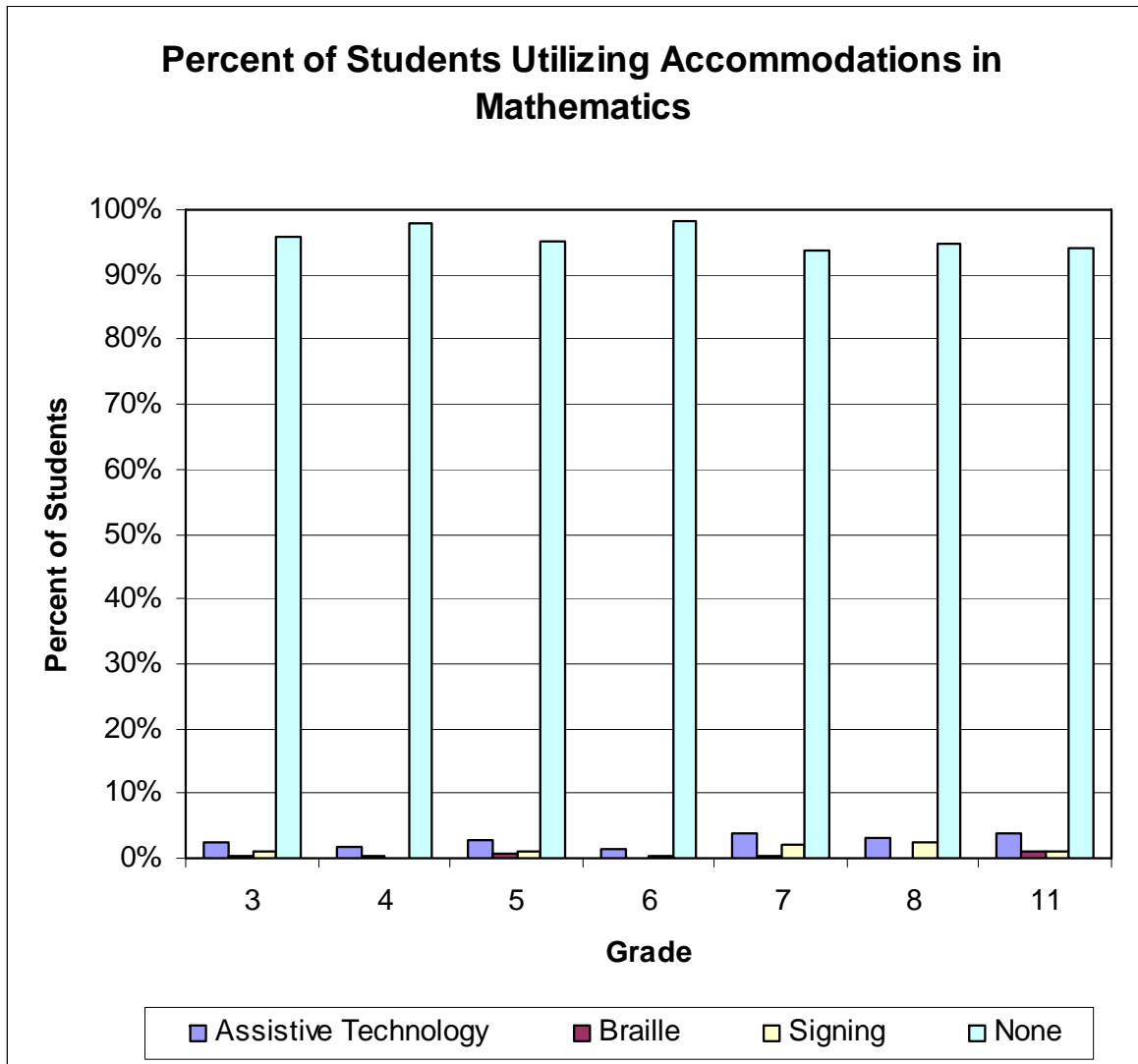


Figure 4
Percent of Students Utilizing Accommodations in Reading/Language Arts

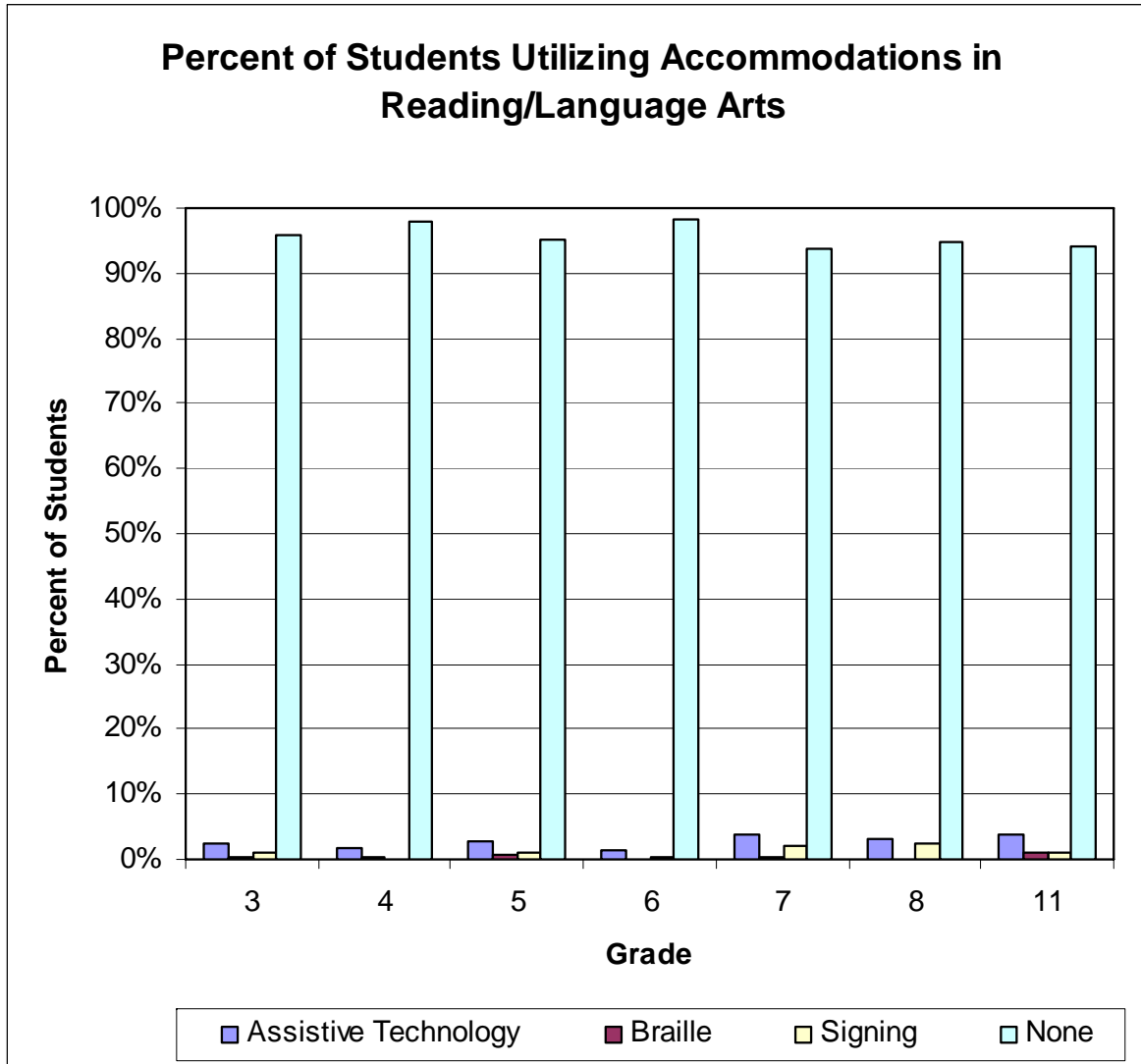


Figure 5
Percent of Students Utilizing Accommodations in Science

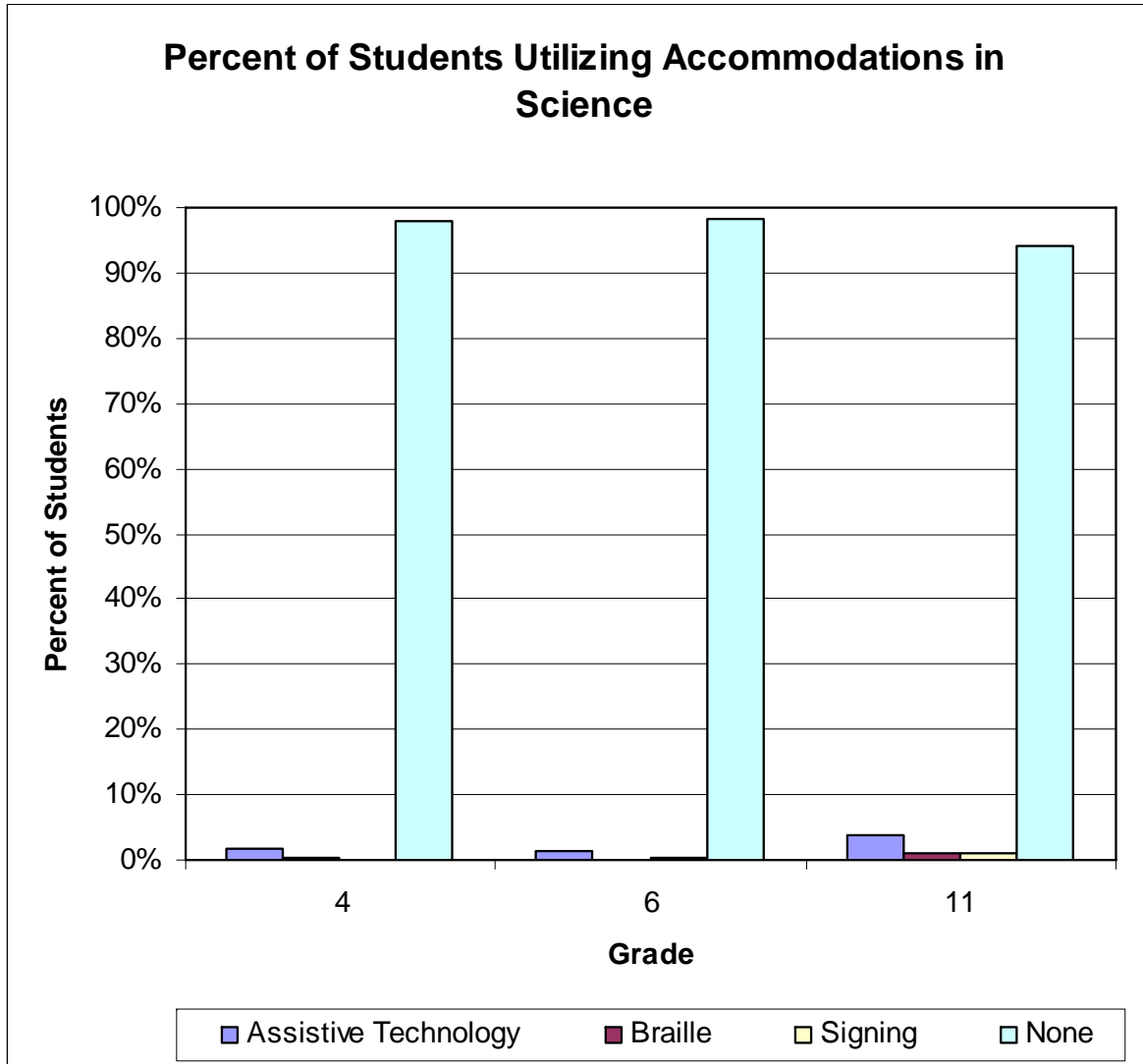


Figure 6
Mean Raw Score as Percent of Total Possible Score for Mathematics

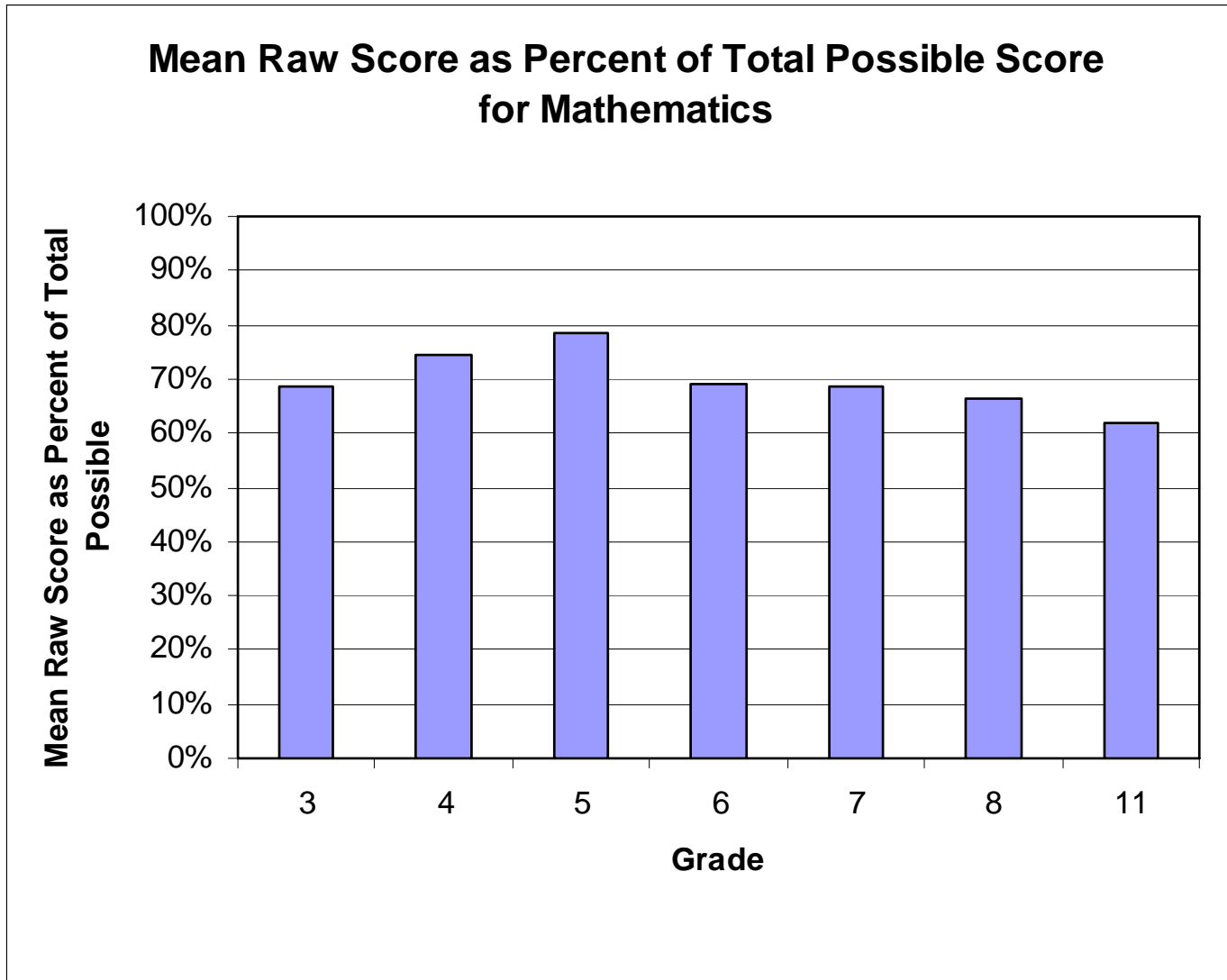


Figure 7
Mean Raw Score as Percent of Total Possible Score for Reading/Language Arts

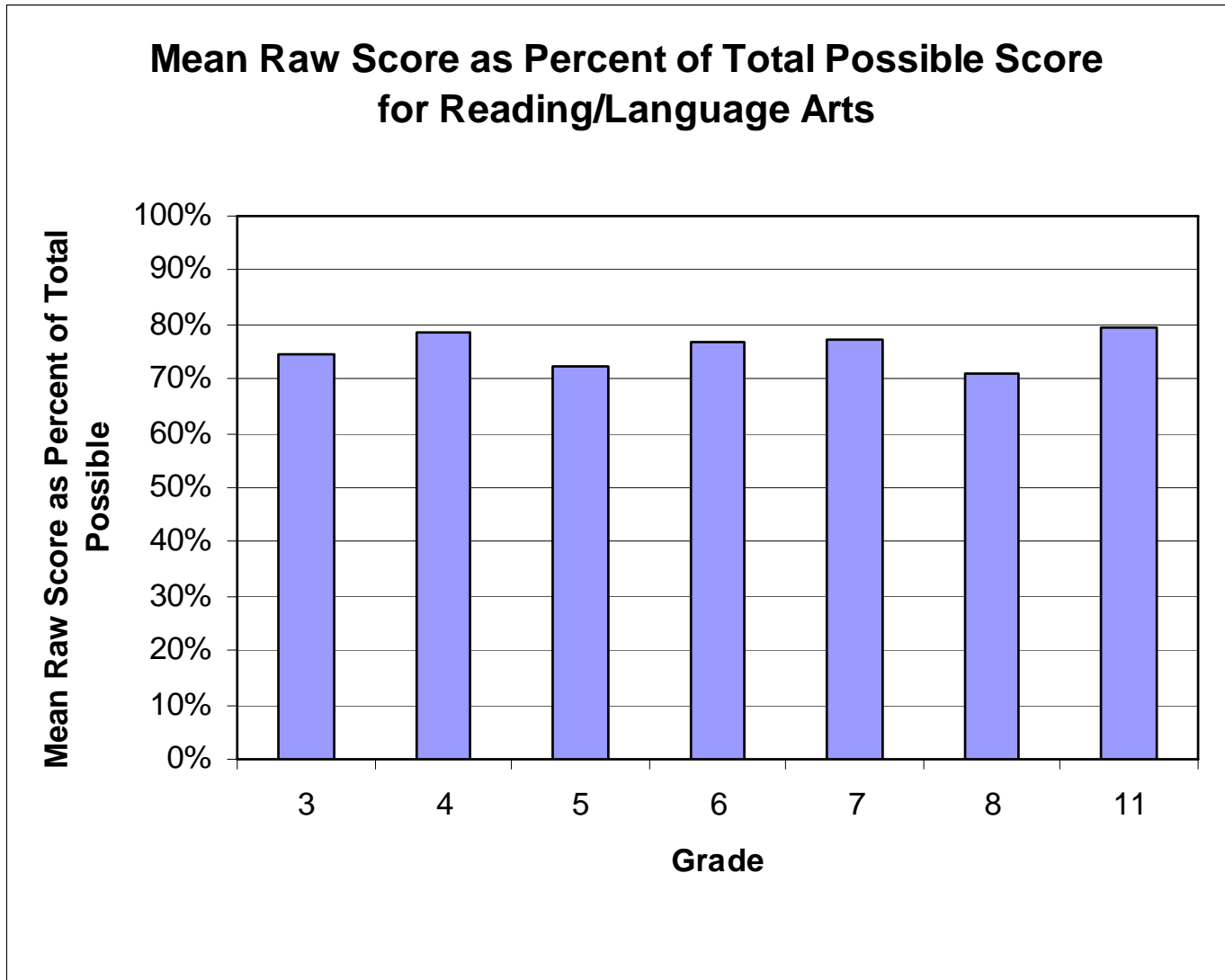


Figure 8
Mean Raw Score as Percent of Total Possible Score for Science

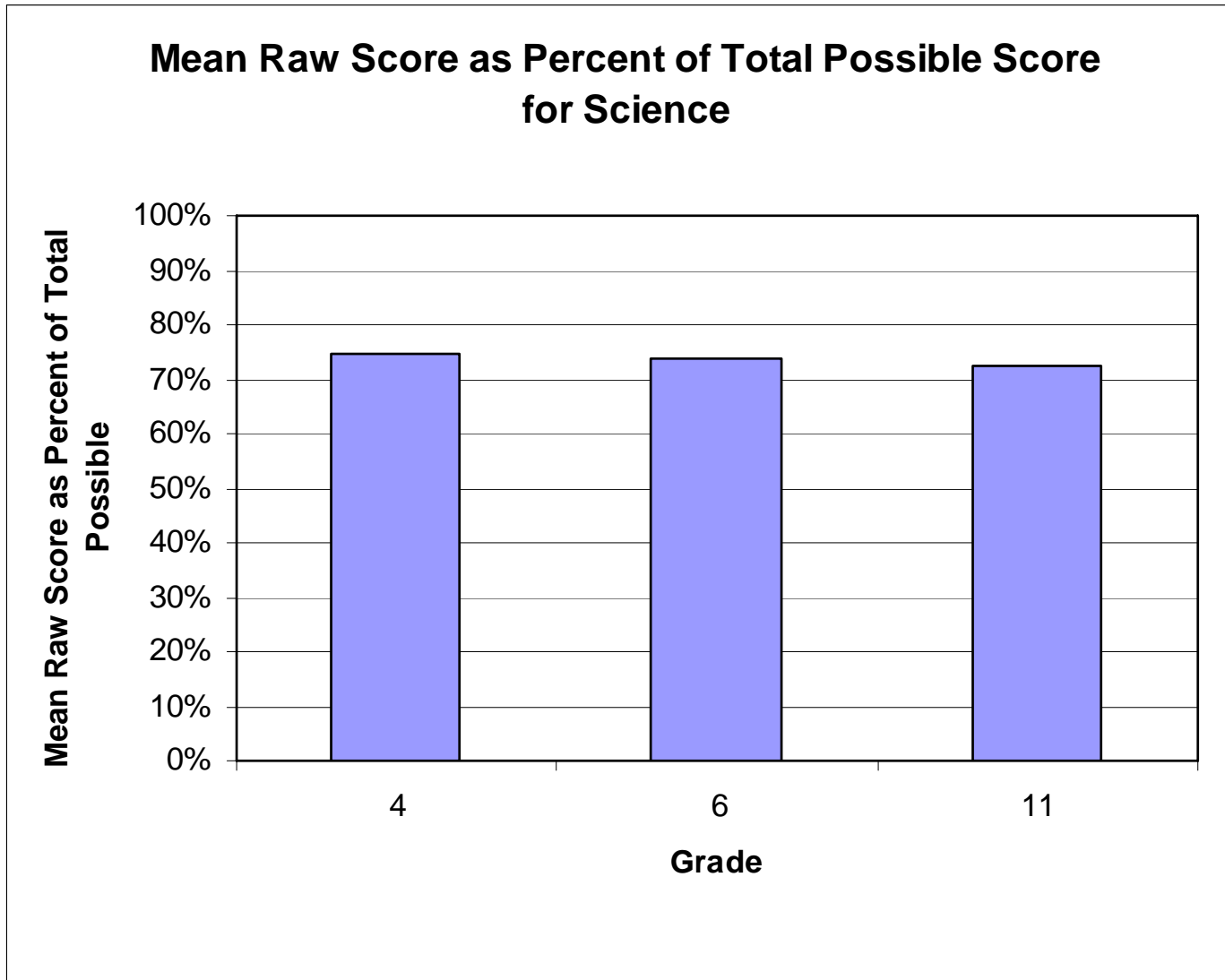


Figure 9
Mean Raw Score as Percent of Total Possible Score by Gender for Mathematics

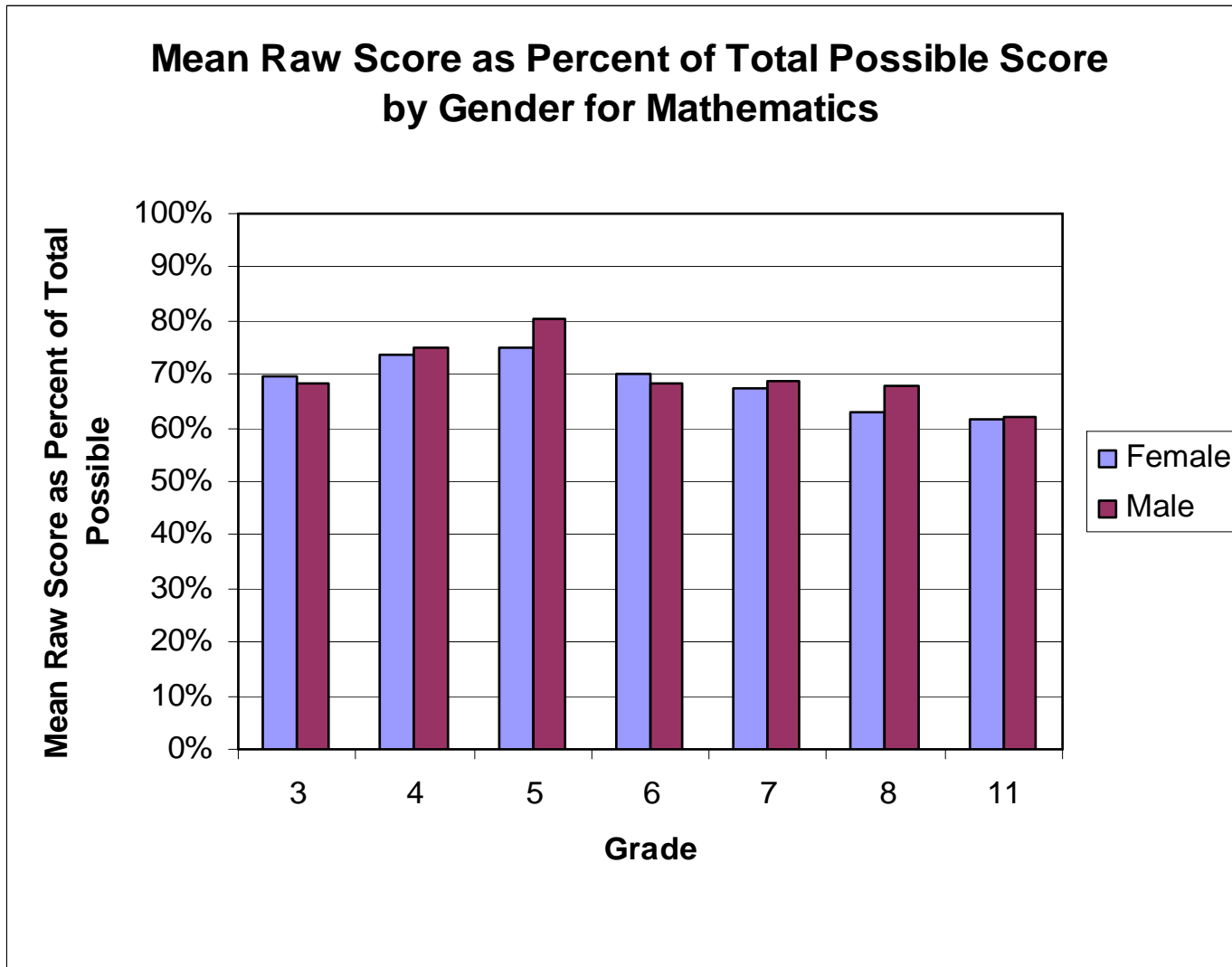


Figure 10
Mean Raw Score as Percent of Total Possible Score by Gender for Reading/Language Arts

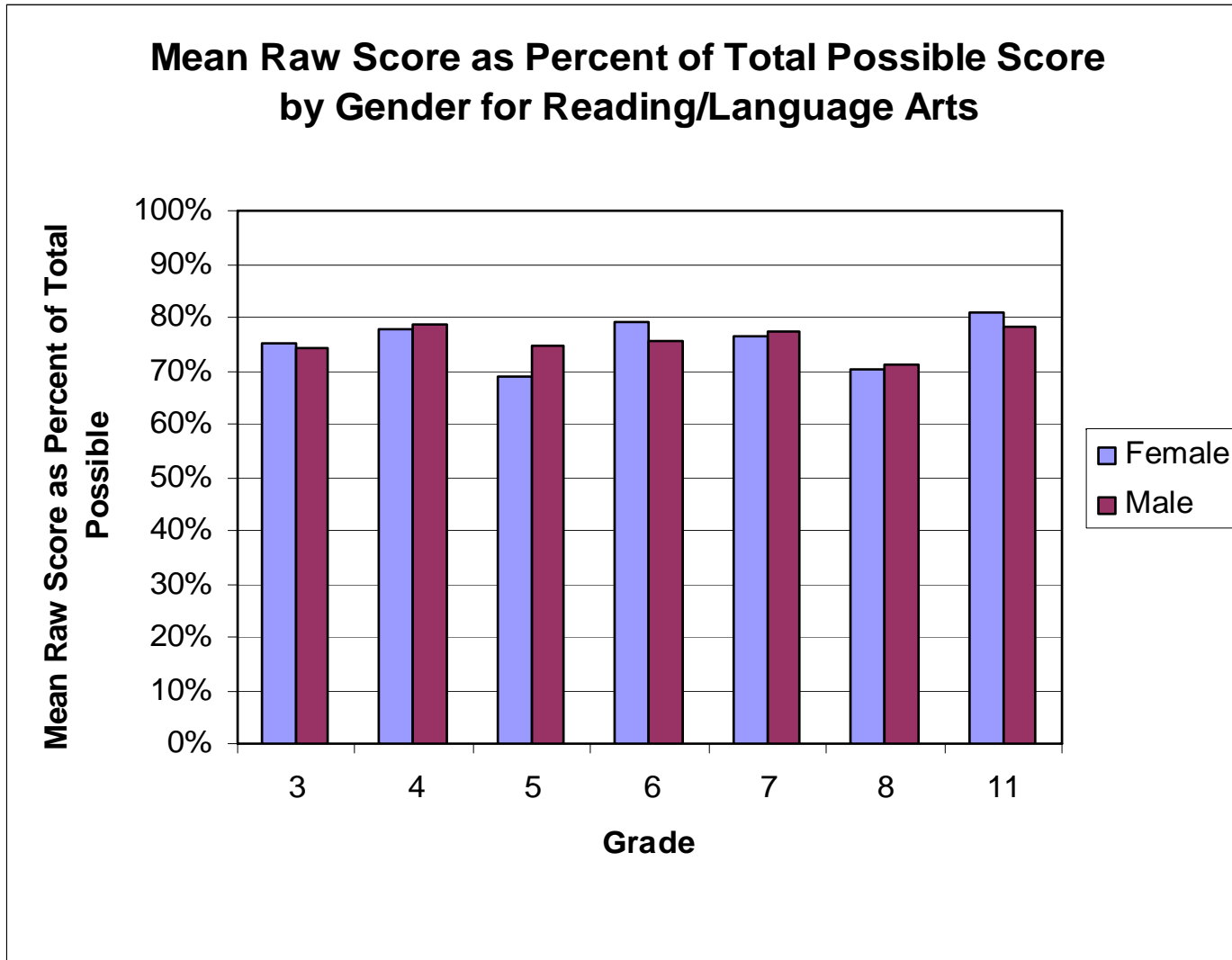


Figure 11
Mean Raw Score as Percent of Total Possible Score by Gender for Science

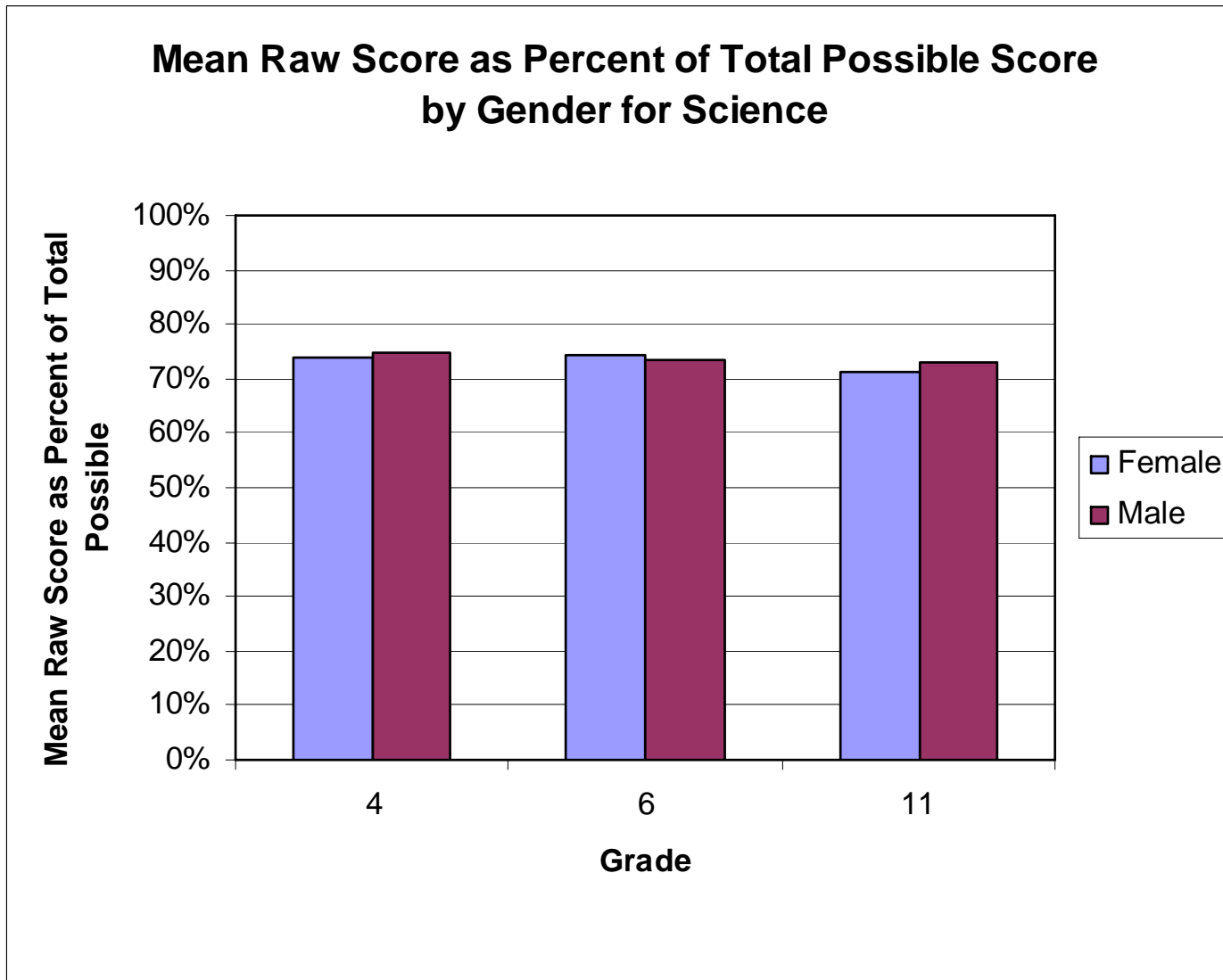


Figure 12
Proficiency Level Impact Data for Mathematics

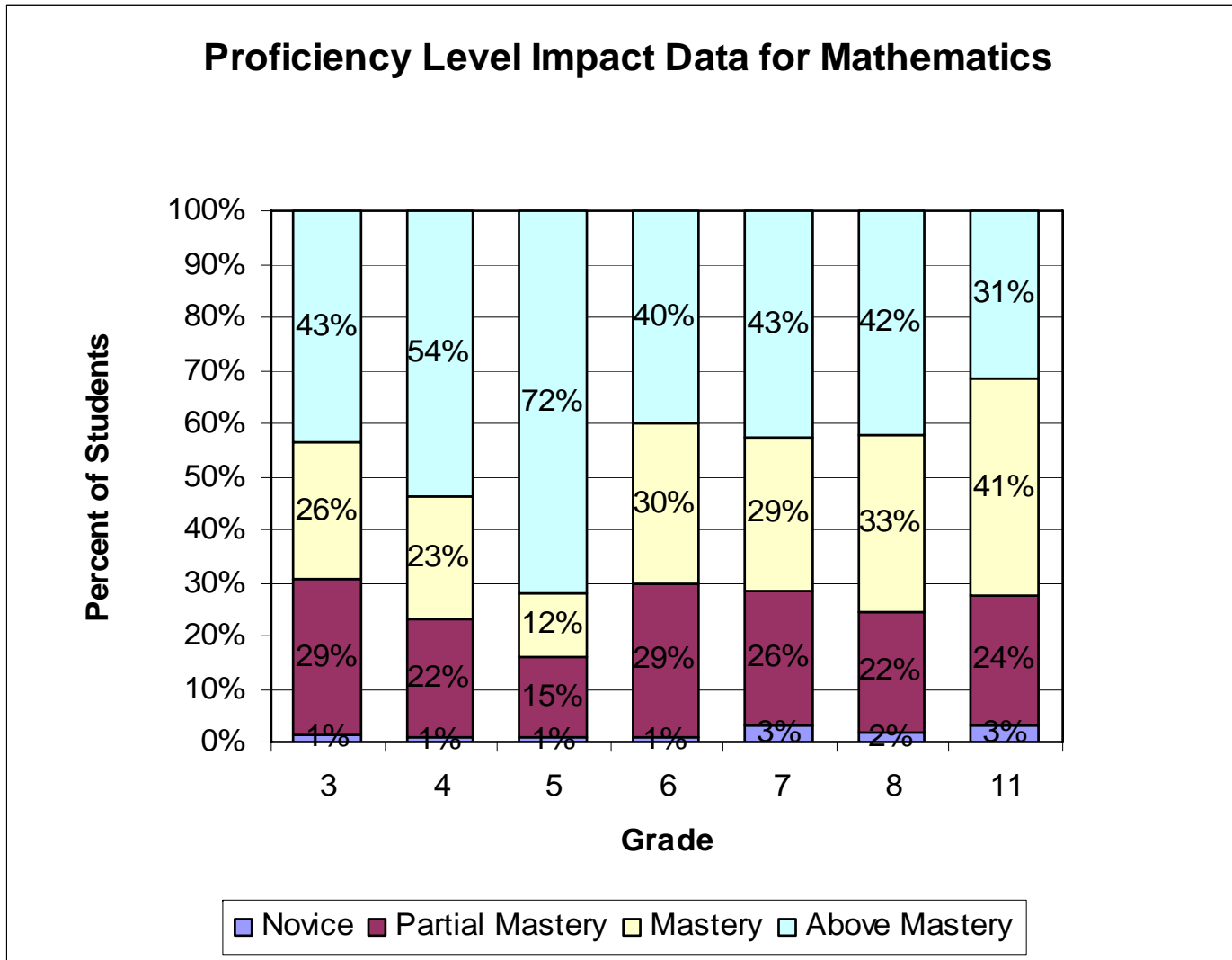


Figure 13
Proficiency Level Impact Data for Reading/Language Arts

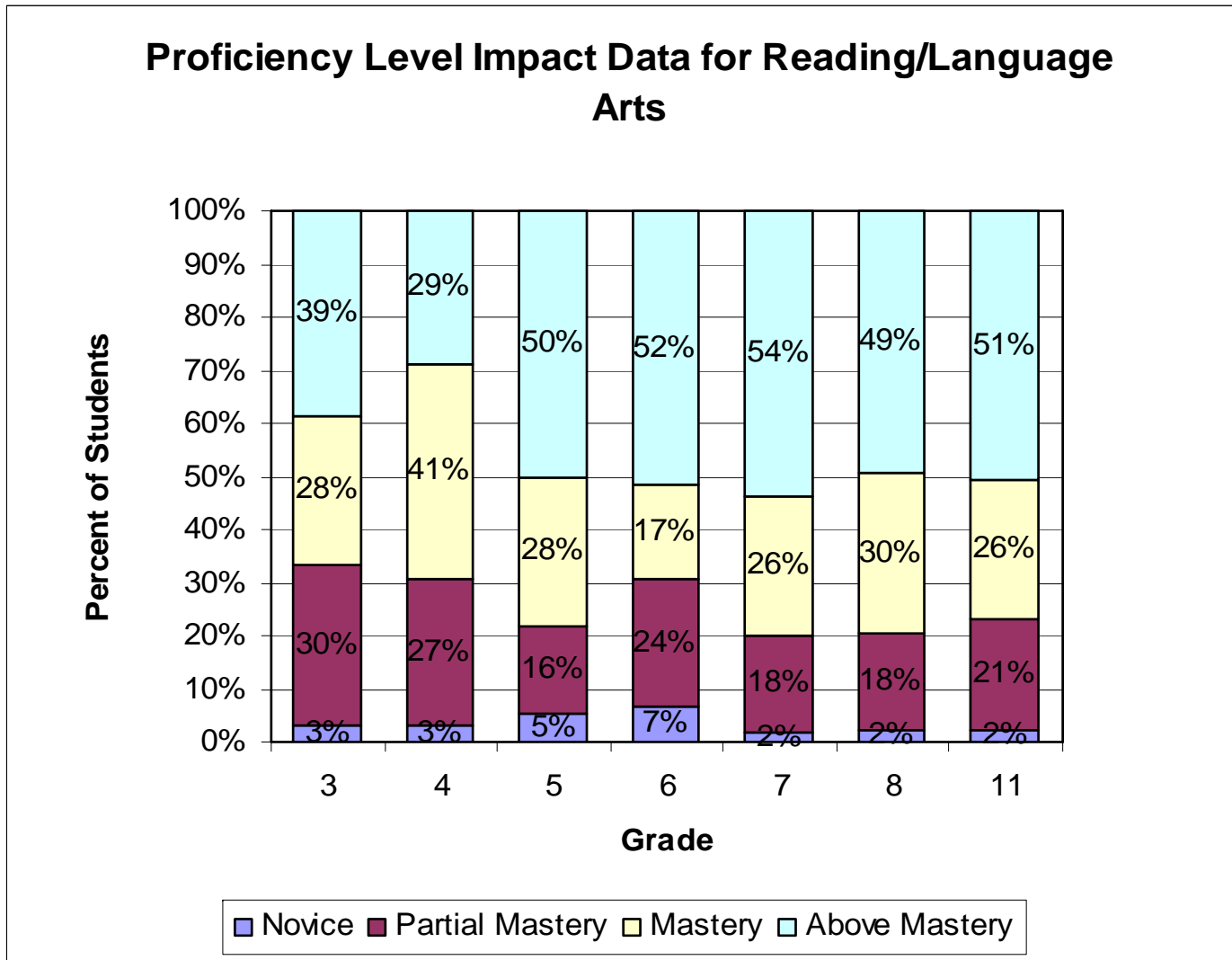


Figure 14
Proficiency Level Impact Data for Science

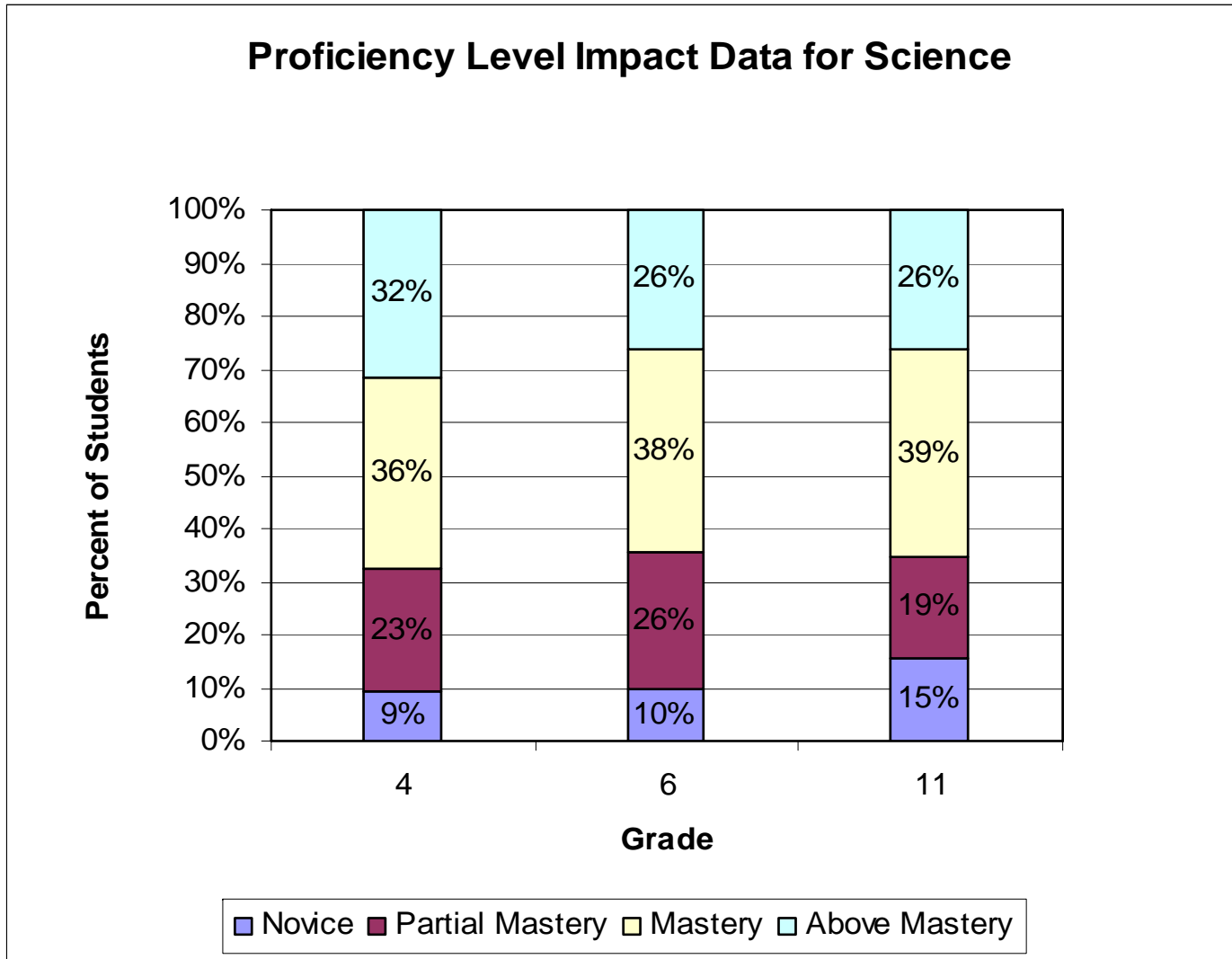


Figure 15
Proficiency Level Impact Data for Mastery and Above for All Content Areas

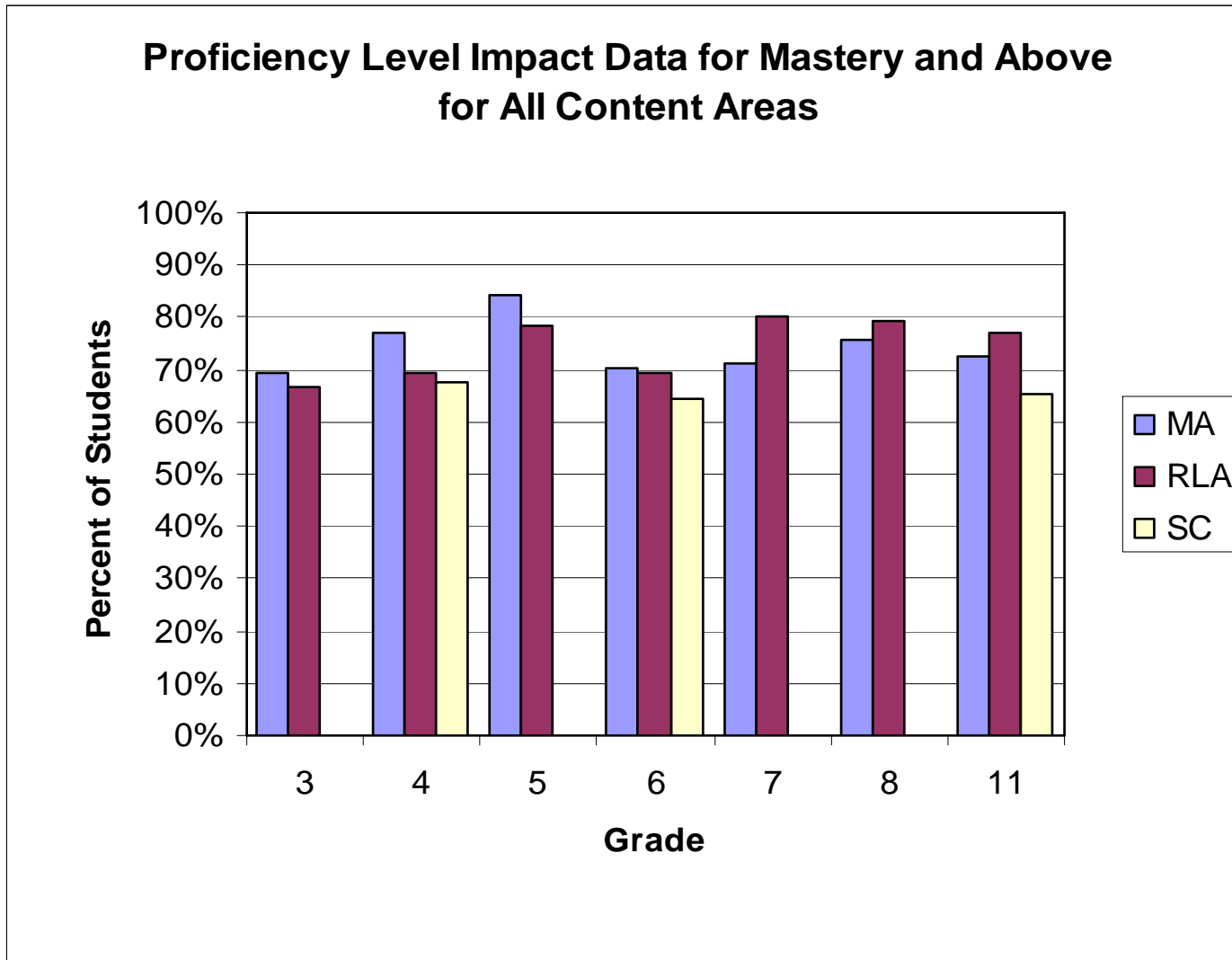


Figure 16
Population Differences from 2008 to 2009 for Gender and Ethnicity

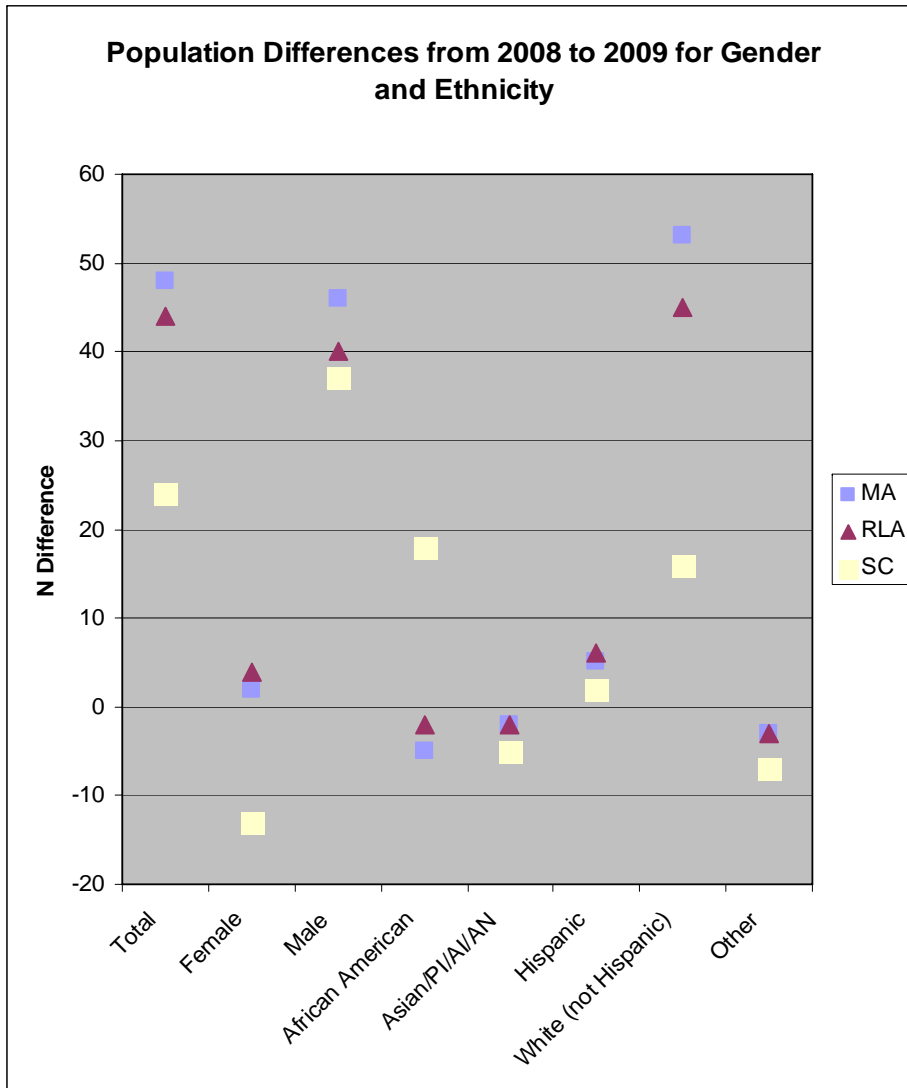


Figure 17
Mean *P*-values by Grade for Mathematics 2006, 2007, 2008, and 2009

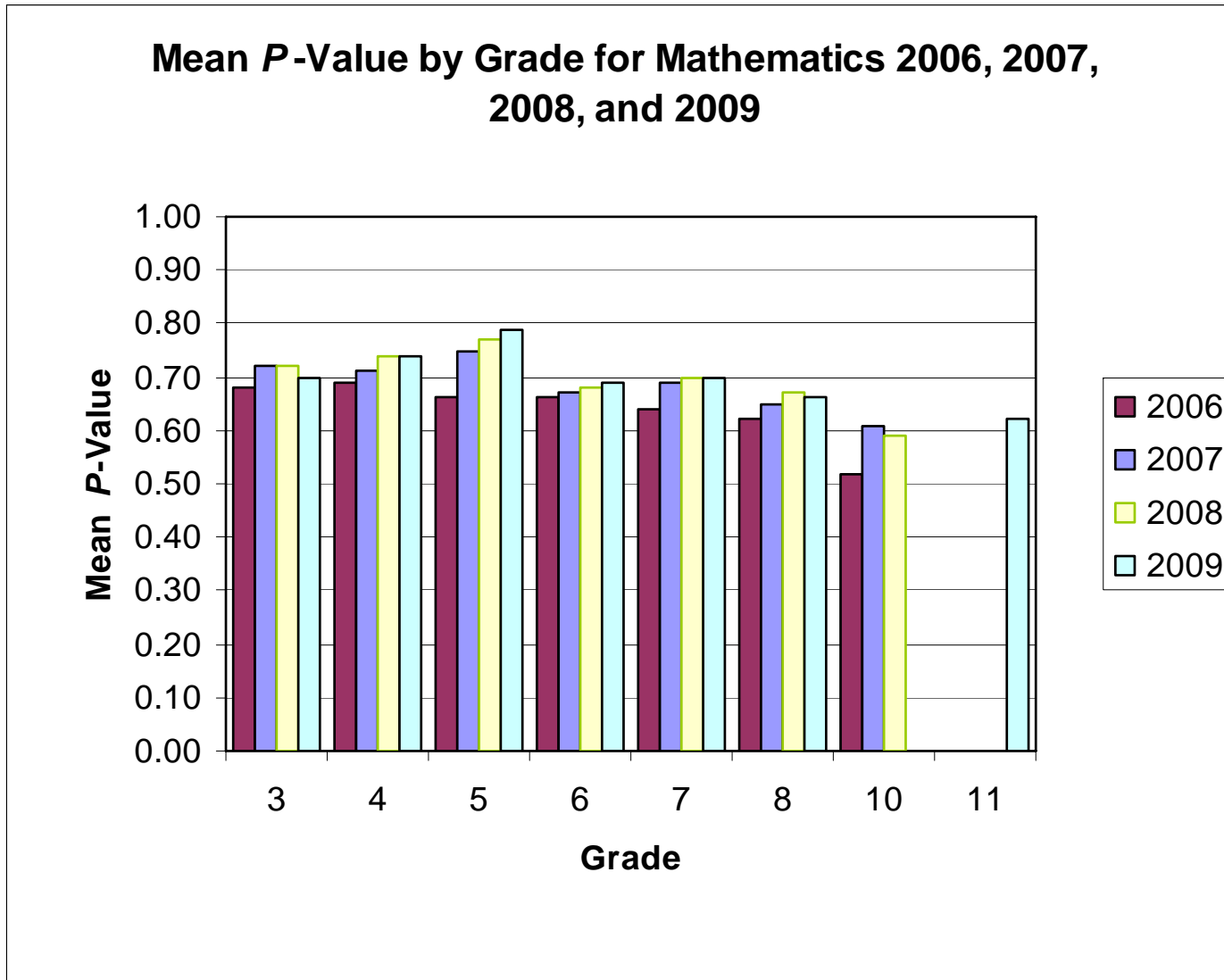


Figure 18
Mean *P*-values by Grade for Reading/Language Arts 2006, 2007, 2008, and 2009

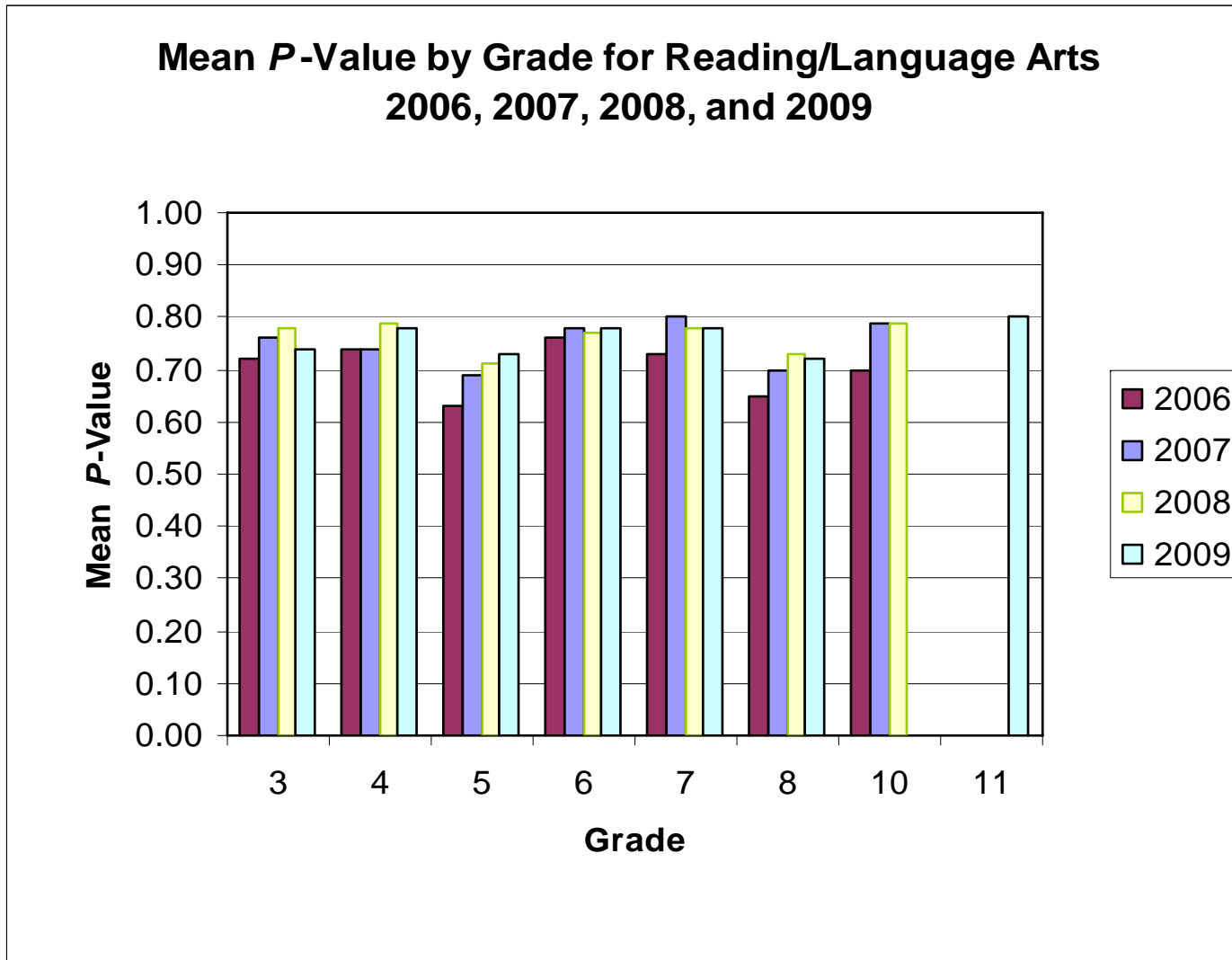


Figure 19
Mean *P*-values by Grade for Science 2008 and 2009

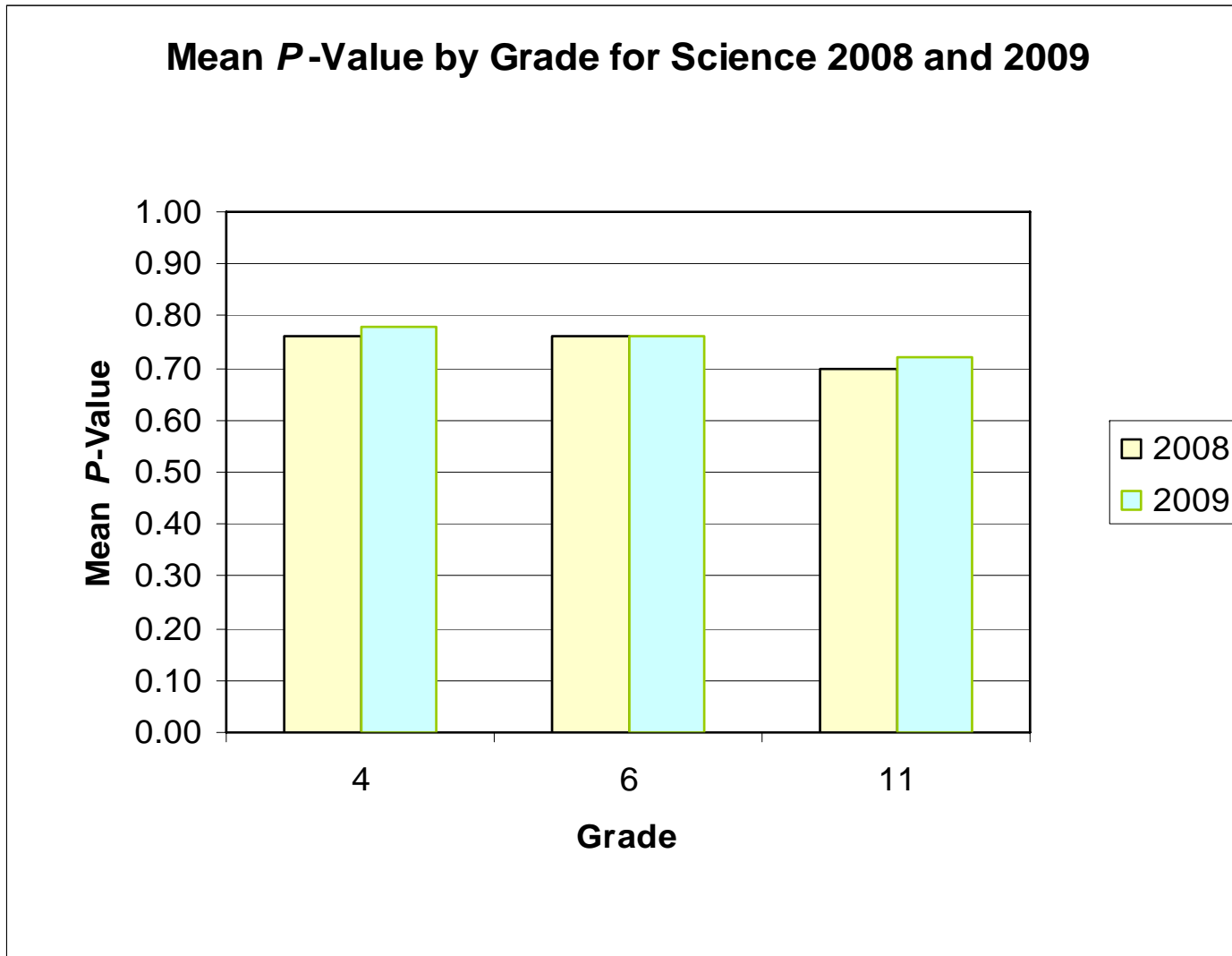


Figure 20
Mean Raw Score as Percent of Total Possible Score for Mathematics 2006, 2007, 2008, and 2009

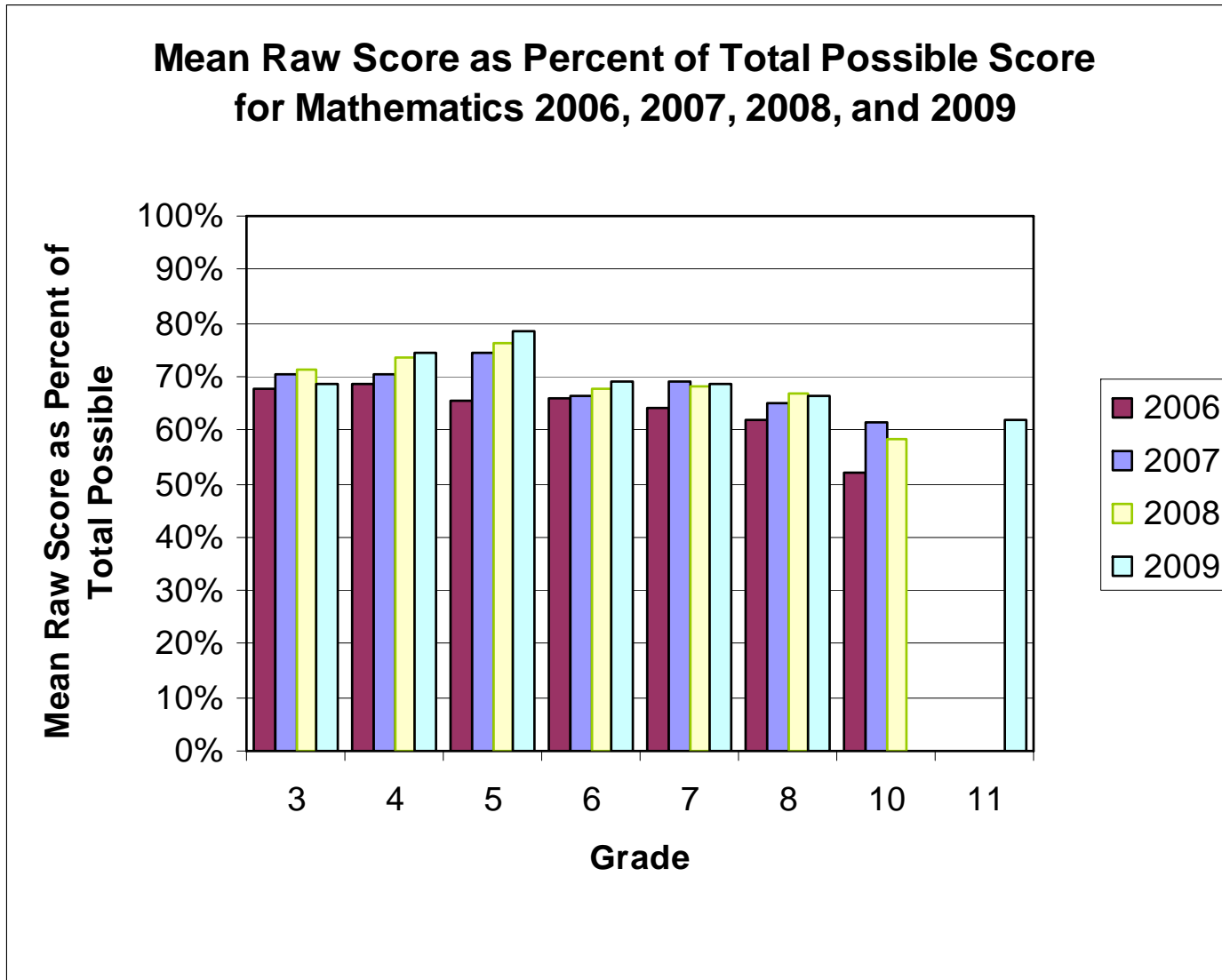


Figure 21
Mean Raw Score as Percent of Total Possible Score for Reading/Language Arts 2006, 2007, 2008, and 2009

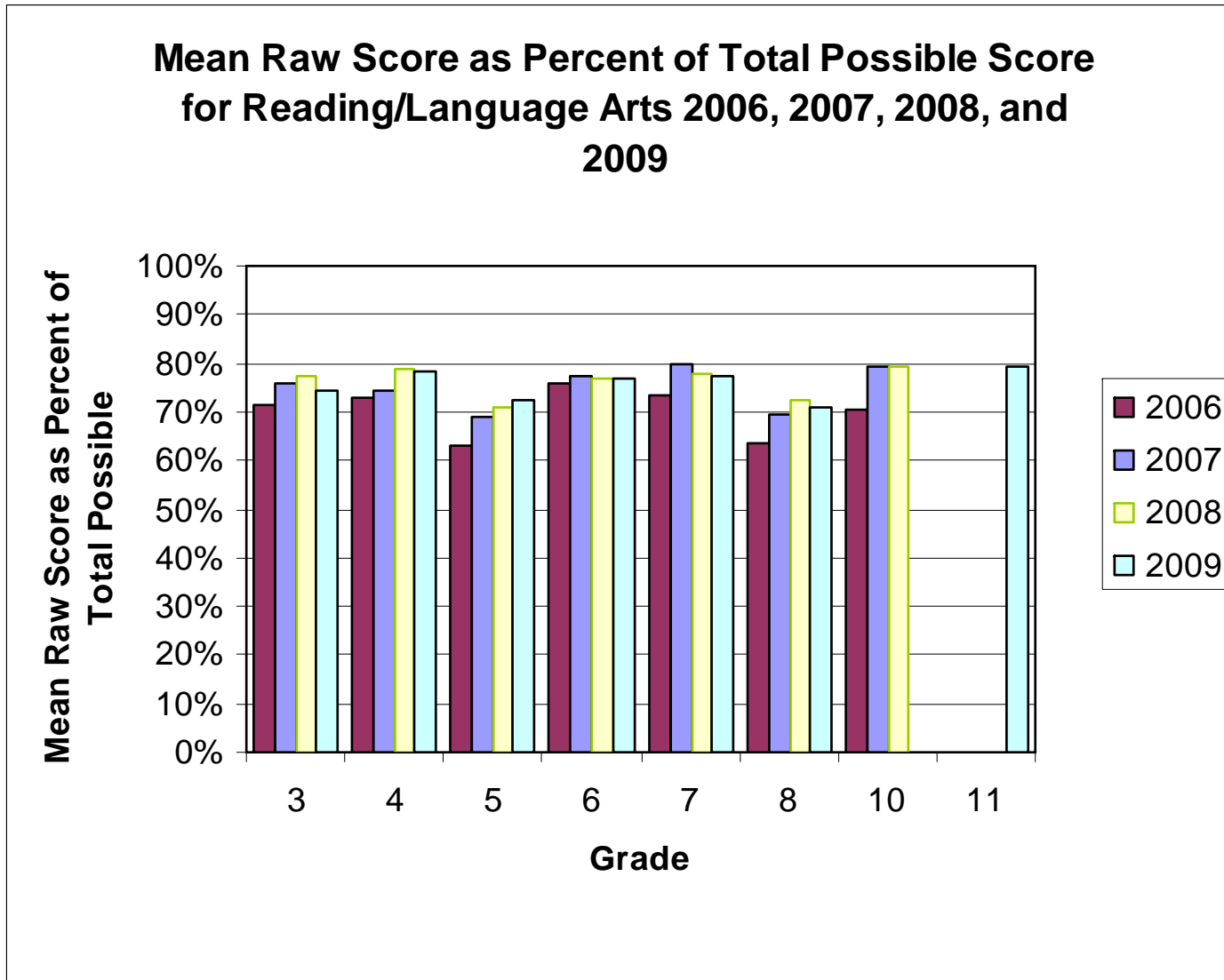


Figure 22
Mean Raw Score as Percent of Total Possible Score for Science 2008 and 2009

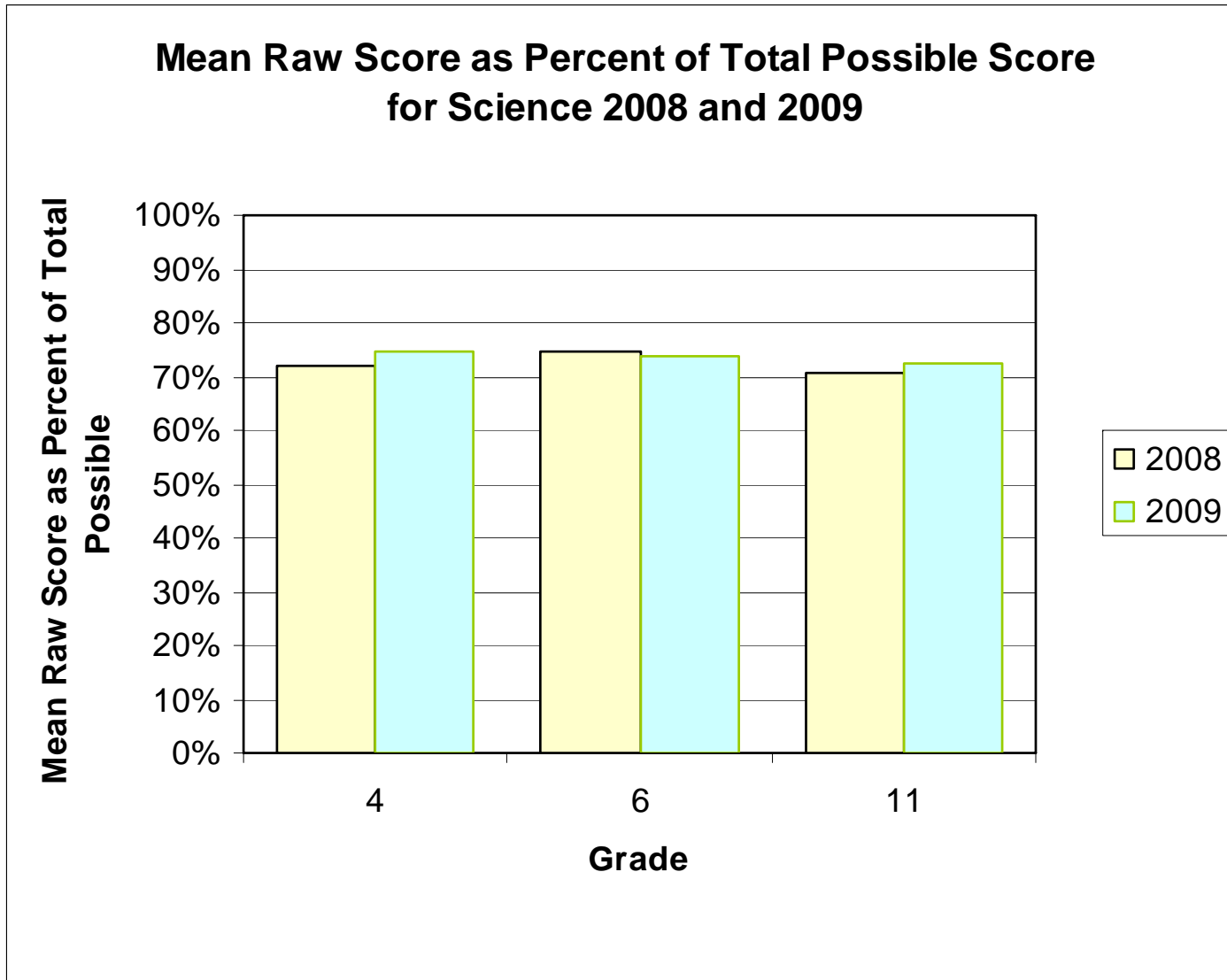


Figure 23
Percent of Students Scoring at Mastery and Above for Mathematics 2006, 2007, 2008, and 2009

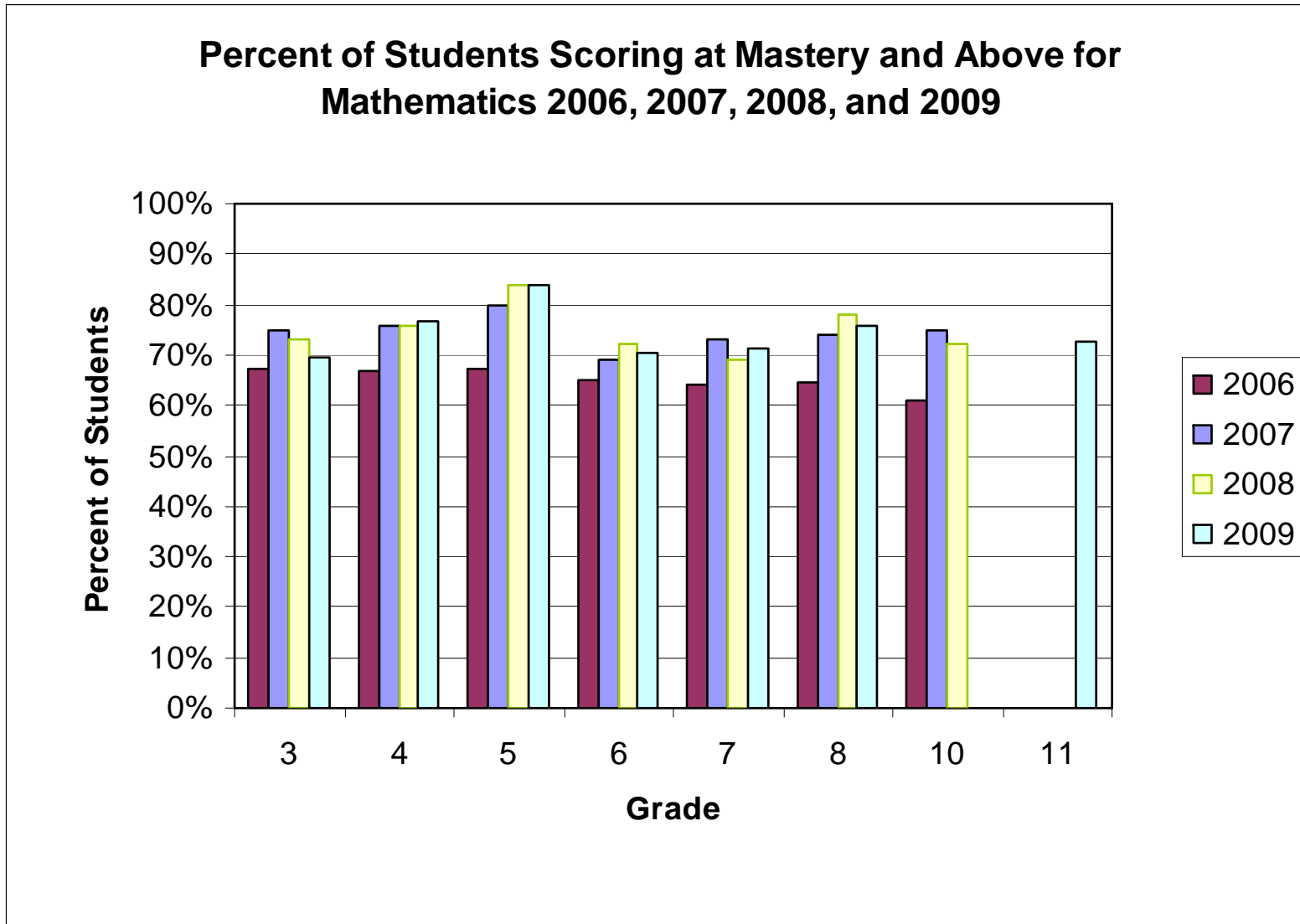


Figure 24
Percent of Students Scoring at Mastery and Above for Reading/Language Arts 2006, 2007, 2008, and 2009

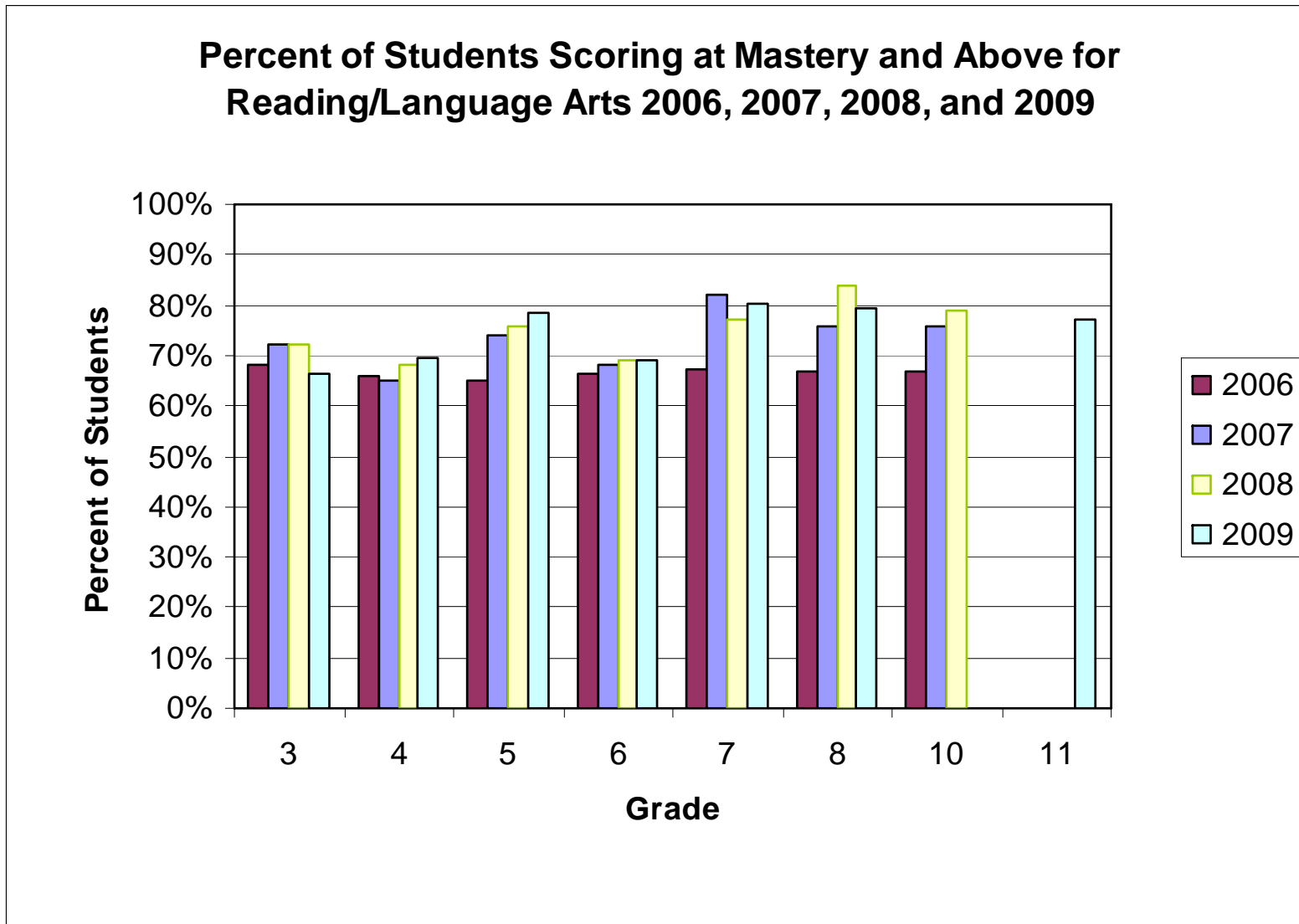


Figure 25
Percent of Students Scoring at Mastery and Above for Science 2008 and 2009

